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TRENDS IN HEALTH CARE
SPENDING BY THE
PRIVATE SECTOR

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PREFACE

The rate of growth of private-sector health expenditures has slowed dramatically in the 1990s. This Congressional Budget Office (CBO) paper—prepared at the request of the Chairman of the House Committee on Ways and Means—reviews recent trends in private health spending, the factors that may have contributed to its slowdown, and the factors that could affect its future growth. The paper also considers what implications the recent private-sector experience holds for Medicare.

Linda Bilheimer of CBO's Health and Human Resources Division prepared this paper under the direction of Joe Antos. Julia Matson provided extensive research assistance, and B.K. Atrostic checked the paper for accuracy. Several people provided helpful comments, including Jim Baumgardner, Sandra Christensen, Doug Hamilton, Jeff Lemieux, Murray Ross, and Pete Welch of CBO; Katharine Levit of the Health Care Financing Administration; and Jim Mays of the Actuarial Research Corporation.

Christian Spoor edited the manuscript, and Marlies Dunson provided editorial assistance. Sharon Corbin-Jallow prepared the paper for publication.

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SUMMARY

A recent dramatic slowdown in the rate at which private-sector spending for health insurance increases each year has raised many questions about the meaning of the trend and its implications for the future. According to the federal government's national health accounts (NHA), the annual growth rate of private health insurance expenditures tumbled from around 14 percent in 1990 to less than 3 percent in 1994 and 1995. Understanding the factors that contribute to that reduction is of particular concern to policymakers who are seeking ways to slow the growth of Medicare spending. At the same time that fundamental changes are occurring in the market for private health insurance, Medicare spending has continued to rise virtually unabated, growing by almost 12 percent in 1995—more than four times the rate for private-sector spending.

Determining Trends in Spending and Their Causes

Sources of data on trends in health spending vary considerably in their completeness and internal consistency. In spite of their different approaches, however, all of the sources tell a consistent story about private health spending for the 1990s—namely, that growth has slowed significantly. Major sources of information include surveys of the revenues and costs of health care providers, surveys of health care costs of employers, and trends in the insurance premiums negotiated by large groups of public employees. Those sources produce timely but incomplete pictures of patterns in health spending, and methodological issues limit their usefulness. The national health accounts, by contrast, use multiple data sources to produce an internally consistent picture of the flow of spending throughout the health care system, classifying expenditures by type of provider or service and by source of funds. But even they are not without methodological problems. The reason is that the data they use are not primarily intended to serve the needs of the accounts. Moreover, tracking health spending becomes more difficult as data systems that were established when fee-for-service reimbursement was the norm try to keep pace with the rapidly changing health care marketplace.

The rate of growth of employers' health care costs has declined recently, reflecting slower growth in premium costs per enrollee. That slowdown results in part because employers are both promoting and taking advantage of the current aggressive price competition among insurers, providers, and health plans in the private sector. For instance, employers are shifting workers into managed care, either by not offering any other kind of plan or by providing financial incentives for workers to choose the plans with the lowest costs. As a result, enrollment rates in conventional fee-for-service plans have fallen dramatically. Only about one-quarter of employees in firms with 200 or more workers were enrolled in such plans in 1996, compared with almost three-quarters eight years earlier.

Employers are also controlling how much they spend for health care by shifting more of the costs to current and retired workers. Although the available data are sometimes inconsistent and confusing, they suggest that the proportion of both dependents and retirees with employment-based coverage has sagged in the 1990s, that the share of premiums paid by employees has risen, and that cost-sharing requirements in health plans have generally increased. Nonetheless, workers may be paying less out of their own pockets in the 1990s as they move to managed care plans that have lower cost-sharing requirements than they previously faced.

In addition, some employers are changing the way they offer or provide certain benefits. A strategy of separately offering (or "carving out") benefits from the main package allows employers to use distinct management techniques to control the use and costs of particular services, such as dental and vision services, prescription drugs, and mental health care. Such "carve-outs" may not only improve the efficiency of service provision but also enable employers to have different premiums and cost-sharing requirements for some benefits than they do for others.

Implications for Future Health Spending

The recently released NHA data for 1995 provide several reminders that declining growth rates for private health expenditures cannot continue indefinitely. Although private health insurance spending grew by only 2.6 percent in 1995, the two components of that rate moved in opposite directions. The growth rate of private health insurance spending for personal health care (the equivalent of expenditures for health care benefits) was 4.6 percent, an increase of more than a percentage point from 1994. By contrast, the administrative costs of private insurance (which include profits) fell considerably, potentially foreshadowing increases in insurance premiums in the near term.

Given how fast the health care marketplace is changing, any projections of private health expenditures are, inevitably, highly uncertain. The latest projections by the Congressional Budget Office assume that the growth rate of private health expenditures will increase over the next few years but will not return to the high rates of the 1980s and early 1990s.[1] Annual growth rates of both private health insurance expenditures and out-of-pocket expenditures are projected to remain below 6 percent for at least the next decade.

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1. Congressional Budget Office, *The Economic and Budget Outlook: Fiscal Years 1998-2007* (January 1997), Appendix H.

Many factors could affect the future course of private health spending. Those factors raise a number of key questions. How much further can health plans squeeze the prices that they pay to providers? How much excess capacity remains in the health care system? To what extent will health plans and providers continue to consolidate? How will health insurers and health plans react to lower profits? What types of new technologies will be developed, and how will they be disseminated? To what extent will quality of care as well as price become an important component in purchasers' decisions about health insurance? And will the current backlash against managed care plans continue? In spite of all of those unknowns, many policy analysts believe that a return to the high rates of spending growth of the 1980s and early 1990s is unlikely, at least in the short run, because of the fundamental changes that have occurred in the market for health care. Most notably, keen price competition among health plans and providers is likely to continue.

Implications for Medicare

Trends in Medicare spending are not directly comparable to those of the private sector because the characteristics of the insured populations differ, as do the benefits that are covered. Nonetheless, the striking difference in the recent ability of the public and private sectors to control health expenditures invites the question, Would spending for Medicare slow if the program adopted the cost containment strategies used by private employers?

In contrast to the private health insurance market, competition has not played a major role in the Medicare program. Almost 90 percent of Medicare beneficiaries are still enrolled in the traditional fee-for-service plan, which uses administered prices to reimburse providers. Because most of those beneficiaries have supplemental coverage that pays Medicare's cost-sharing amounts, neither they nor their providers have much incentive to curb their use of services. The managed care options available to most Medicare beneficiaries are restricted to health maintenance organizations, and payments to those plans are tied to the program's fee-for-service payments rather than being based on competitive prices, as they are in the private sector.

Recent experience in the private sector suggests that price competition among health plans, aggressive purchasing strategies, and price incentives for beneficiaries can slow the growth of spending. Thus, Medicare spending might indeed rise more slowly if the program adopted some of the strategies that employers are using to control health spending. But the restructuring that has occurred (and continues to occur) in private insurance markets has evolved over several years in response to market forces. Restructuring the Medicare program to instill price incentives and create functional competitive markets for health plans would be a complex

undertaking that could take years to complete. Delaying action, however, will only make such restructuring more difficult to accomplish in the future.

INTRODUCTION

A growing body of evidence from a variety of sources indicates that increases in health care spending by the private sector have slowed considerably in recent years. For example, according to the national health accounts (NHA), the annual growth rate of private health insurance expenditures fell from about 14 percent in 1990 to less than 3 percent in 1994 and 1995. Similarly, several recent surveys suggest that the annual growth in premiums for employment-based health insurance dropped from double-digit rates in the early 1990s to rates of 2 percent or less in 1995 and 1996.

This paper focuses on several key questions generated by the slowdown in private health expenditures:

- How are trends in health expenditures measured, what are the limitations of the different measures, and what do they indicate about trends in private-sector spending?
- What factors have contributed to slower growth of private health expenditures?
- How fast are private health expenditures likely to grow in the future?
- And could the growth rate of Medicare spending be reduced if the program adopted private-sector approaches to paying for and delivering health services?

The paper examines those questions and explores the uncertainty surrounding the factors that contribute to current and future trends in private-sector spending.

MEASURING TRENDS IN HEALTH EXPENDITURES

Different sources of data produce a variety of indicators for tracking the growth of health expenditures in general and of private health expenditures in particular. Each of those indicators—which include the revenues and costs of health care providers, the health care costs of employers, and the insurance premiums negotiated by large groups of public employees—provides a partial view from a different perspective of the structural change occurring in the health care industry. The national health accounts, by contrast, use those types of indicators and information from other sources to construct a more comprehensive picture of trends in health spending. In spite of their various methodological limitations, all of those indicators and the NHA tell a consistent story—that the growth of private health expenditures has slowed significantly in the 1990s.

Data on Providers' Revenues and Costs

Data on the revenues and costs of health care providers are typically the most timely source of information for tracking trends in health spending. Revenue data for certain types of providers, such as hospitals, can be readily reported and require much less time to compile than the more comprehensive national health accounts. Consequently, such information can be available a year or more before corresponding information from the NHA.

But revenue and cost data from selected categories of providers do not give a complete picture of health spending. Nor do they provide insights into private expenditures per se, because the data typically reflect all revenues regardless of who paid. Such data also shed no light on the factors that contribute to the underlying financial trends. For example, slower growth in providers' revenues could be an indication of downward pressure on prices because of a more price-competitive market or because of reductions in the use of services through greater efficiency. But it could also be a consequence of less generous health insurance benefits or changes in the type of coverage that people have.

Methodological Issues. Information on providers' revenues and costs can be collected directly from a particular category of providers, as with the American Hospital Association's (AHA's) National Hospital Panel Survey; or derived from surveys of health care establishments in general, as with the Employment, Hours, and Earnings (EHE) data series produced by the Bureau of Labor Statistics from its Survey of Current Employment Statistics (CES); or compiled into an index derived from multiple sources, as with the Milliman and Robertson Health Cost Index (HCI).[1] Each of those sources presents a different partial view of how health care providers are faring financially in the current marketplace.

The National Hospital Panel Survey, which covers about one-third of the nation's community hospitals, collects monthly information on hospitals' revenues and expenses and on the use of hospital services. Because data on inpatient and outpatient revenues are recorded separately, analysts can track the shifts from inpatient to outpatient services that are occurring over time. However, trends in the hospital industry alone allow for only limited inferences about financial trends in the health care industry as a whole.

The CES collects information on workers' wages and hours (also on a monthly basis) from a sample of all nonfarm establishments. The data are broken

1. For a discussion of using the EHE and the HCI as indicators of health spending, see Paul B. Ginsburg and Jeremy D. Pickreign, "Tracking Health Care Costs," *Health Affairs*, vol. 15, no. 3 (Fall 1996), pp. 140-149.

down by industry using the Standard Industrial Classification codes, which enables analysts to follow trends in wages and hours specifically for health care establishments. Although the data provide information on labor costs for various types of health care providers, they do not reflect possibly conflicting trends in the cost or use of capital in health care.

The HCI estimates the growth in spending for three broad categories of services: hospital care, physicians' services, and drugs. (The costs of other services, such as nursing home care and durable medical equipment, are also included in the index, but they are not estimated separately and their effects on the index are small.) The data come from surveys of providers, both publicly available and proprietary. Users of the index receive little information about some of those data sources, however, or about how the index is calculated. The HCI is also difficult to interpret because it excludes Medicare spending but includes spending by the Medicaid program and uninsured people. Because it includes Medicaid spending, the index cannot provide direct insight into trends in private health expenditures. But the exclusion of Medicare means that it does not track total health spending either.

Recent Trends in Providers' Revenues and Costs. The AHA's hospital survey shows that the overall growth rate of community hospital revenues fell from almost 11 percent in 1990 to less than 4 percent in 1996 (see Table 1). But the trends for inpatient revenues, outpatient revenues, and revenues from other sources varied considerably. The growth of inpatient hospital revenues dropped from almost 9 percent a year to less than 1 percent over the period, reflecting the major shift from inpatient services to ambulatory care that has occurred in recent years. The growth rate for outpatient services also fell markedly, but because it was extremely high at the beginning of the decade (about 18 percent a year), the halving of the rate that occurred between 1990 and 1996 meant that outpatient revenues were still growing at around 9 percent a year in 1996. Nonpatient revenues continued to grow rapidly, reflecting hospitals' efforts to capture revenues from other sources as their revenues from patient care increased more slowly. But nonpatient revenues are still only a small fraction of total hospital revenues—about 6 percent in 1996.

Payroll information derived from the CES indicates that hours worked and average hourly wages in health care establishments, which accelerated in the latter half of the 1980s, grew less rapidly in the 1990s. Payroll in health care establishments grew only half as fast in 1995 (by less than 5 percent) as in 1990 (by 10 percent). Moreover, average hourly wages in the health care industry, which had previously grown significantly faster than average hourly wages for all industries, were growing no faster than that average by 1995. Those trends suggest that upward pressures on labor costs in the health care industry have slackened significantly in recent years—possibly reflecting more efficient use of workers in increasingly competitive markets.

TABLE 1. ANNUAL GROWTH OF PROVIDERS' REVENUES AND COSTS, 1990-1996 (By calendar year, in percent)

	1990	1991	1992	1993	1994	1995	1996[a]
Community Hospital Revenues	10.9	10.3	9.4	7.1	4.9	5.0	3.7
Inpatient	8.7	8.2	7.3	5.7	2.5	2.6	0.7
Outpatient	18.4	18.0	15.6	10.6	10.1	9.9	9.1
Other	11.7	7.2	10.1	9.1	9.9	10.4	11.2
Labor Costs for Health Establishments Based on the CES							
Payroll	10.0	9.0	7.3	5.5	4.4	4.8	n.a.
Hours worked	3.9	3.5	3.2	2.0	1.6	1.9	n.a.
Average hourly wage	4.8	4.1	2.7	2.4	1.7	1.9	n.a.
Adjusted Milliman and Robertson Health Cost Index[b]	10.9	7.7	8.4	4.3	3.1	3.2	n.a.
Memorandum:							
Average Hourly Wage, All Industries	2.7	1.9	1.3	1.4	1.7	2.0	n.a.

SOURCE: Congressional Budget Office based on the American Hospital Association's National Hospital Panel Survey; and Paul B. Ginsberg and Jeremy D. Pickreign, "Tracking Health Care Costs," *Health Affairs*, vol. 15, no. 3 (Fall 1996), pp. 140-149.

NOTE: CES = Survey of Current Employment Statistics (conducted by the Bureau of Labor Statistics); n.a. = not available.

a. Based on data through September 1996.

b. Ginsberg and Pickreign adjusted the index to include Medicare spending.

Trends in the HCI (adjusted to include Medicare spending) suggest that growth rates for providers' revenues also generally declined over the period, from about 11 percent in 1990 to about 3 percent in 1995. Those findings are consistent with the general story of more competitive markets for health care. But because of uncertainty about the methods underlying the index, it is unclear what those rates are actually measuring.

Data on Employers' and Employees' Costs for Health Care

Two general sources of information show trends in the costs of employment-based health insurance. The first is annual surveys of employers that track changes in their health care costs. The second is information about the annual health expenditures of certain large groups of public employees.

Annual surveys of employers' health insurance costs are generally published by accounting or benefits consulting firms, including KPMG Peat Marwick, Foster Higgins, and Hay/Huggins. The employment cost index (ECI) produced each year by the Bureau of Labor Statistics provides similar information. Because of the visibility of those surveys and the ready availability of the data, much of the recent discussion of trends in private-sector health care spending has focused on premiums for employment-based insurance.

As opposed to providers' revenues and costs, which vary continually, health insurance premiums are set annually and remain fixed throughout the year. Insurers establish new premiums based in part on their underwriting experience in the previous year or years. But they may be hesitant to modify premiums after just one year's slower or faster growth in health care costs. They may also delay premium increases because of the increasingly competitive nature of health care markets. Thus, although data about premiums are quite timely, the premiums themselves may lag in reflecting insurers' recent spending experience.

Surveys of employers' health care costs are useful because they throw some light on what is happening to health coverage as well as to spending. Most surveys ask questions about the types of plans that employers offer, their cost-sharing requirements, and their covered benefits. Over time, changes in those characteristics of plans can have a major impact on the premiums of employment-based insurance. As with changes in providers' revenues, slower growth in premiums may reflect greater efficiency and more price competition in health care markets. But it could also result from fundamental changes in the nature of the coverage being purchased.

In spite of the range of material they collect, surveys of employers' premiums give incomplete information on trends in private health expenditures because they

exclude both out-of-pocket spending and nongroup insurance premiums. In addition, at least one of the well-known surveys (the ECI) excludes employees' share of premium costs. Out-of-pocket spending, nongroup premiums, and employees' share of premiums constitute a considerable portion of private-sector spending, and they do not necessarily move in tandem with employers' costs. According to the NHA, for example, employers' health care costs grew at an average rate of 7.6 percent a year between 1990 and 1994, but the rate for employees' premium contributions was considerably higher at 9.4 percent. By contrast, total premiums for individually purchased plans grew at an average rate of only 6.2 percent a year (including an outright reduction between 1993 and 1994), and out-of-pocket spending had the slowest average growth of all, 4.2 percent a year.[2]

The experience of large groups of public-sector employees provides a slightly different perspective on trends in employment-based premiums. Such purchasers of health insurance as the Federal Employees Health Benefits (FEHB) program, the California Public Employees Retirement System (CalPERS), and the Minnesota State Employees Insurance Plan (MSEIP) wield enormous market power, which they can use to drive down premiums. Because of their size, they can also offer their employees a wide range of choices, with financial incentives to select lower-cost plans. Thus, although their experience cannot be generalized to other employers, it offers important insights into the additional effects on premiums that large employer groups can have in already competitive markets.

Methodological Issues. Each of the major surveys used to estimate employers' health care costs has limitations, which should be taken into account when interpreting their findings. The surveys use different sampling strategies, different measures of health care costs, and different approaches to collecting and reporting that information. Their methods affect the validity of their results and the inferences that can be drawn from those results. Because of the complexity of these issues, they are discussed at length in the appendix to this paper.

Recent Trends in Employers' and Employees' Health Care Costs. In spite of their different approaches, the major surveys of employers tell a consistent story about the slowdown in employers' costs for health insurance in the 1990s (see Table 2). They all indicate that the growth in employers' premiums or costs fell from double-digit rates early in the decade to 2 percent or less in 1995 and 1996. Despite the similarity of the trends, however, the surveys sometimes suggest quite different growth rates for premiums in any particular year. The estimates of the change in employers' health care costs in 1996, for example, differ by as much as 5 percentage points

2. See Cathy A. Cowan and others, "Business, Households, and Government: Health Spending, 1994," *Health Care Financing Review*, vol. 17, no. 4 (Summer 1996), pp. 157-178.

TABLE 2. ANNUAL GROWTH OF PREMIUMS OR COSTS FOR EMPLOYMENT-BASED HEALTH INSURANCE, 1990-1996
(By calendar year, in percent)

Source	1990	1991	1992	1993	1994	1995	1996
Hay/Huggins[a]	17	13	12	8	3	1	-3
Foster Higgins[b]	17	12	10	8	-1	2	2
KPMG Peat Marwick[c]	n.a.	12	11	8	5	2	d
Bureau of Labor Statistics[e]	11	11	9	7	4	d	d
Memorandum:							
Consumer Price Index for All Urban Consumers	5.4	4.2	3.0	3.0	2.6	2.8	2.9

SOURCE: Congressional Budget Office based on the sources cited below.

NOTE: n.a. = not available.

a. Hay/Huggins, *Benefits Report* (Washington, D.C.: Hay/Huggins, 1990 through 1996). The surveys use average premiums for all employers for the most prevalent plan, based on a sample of public and private employers that generally have at least 100 employees.

b. Foster Higgins, *National Survey of Employer-Sponsored Health Plans* (New York: Foster Higgins, 1990 through 1996). The surveys are based on a sample of private and public employers with 10 or more employees.

c. KPMG Peat Marwick, *Health Benefits* (n.p.: KPMG Peat Marwick, 1990 through 1996). The surveys are based on a sample of private and public employers with 200 or more employees.

d. Growth of 0.5 percent or less.

e. The employment cost index compiled by the Department of Labor's Bureau of Labor Statistics. The index covers only the employers' share of premiums or costs. Growth rates measure changes in cost over a 12-month period from December to December.

among the four surveys, indicating underlying methodological differences or measurement errors.

Data from the FEHB program, CalPERS, and MSEIP tell the same story as the employers' surveys; the growth rates of premiums for those groups of public employees dropped dramatically in the past seven years (see Table 3). Recently, all three groups—through various combinations of aggressive purchasing and financial incentives for employees—have actually managed to lower their average annual premiums, demonstrating the impact that effective use of market power and consumer choice can have.

The National Health Accounts

The national health accounts compiled by the Health Care Financing Administration (HCFA) constitute the only data series that attempts to use information from multiple sources, both private and public, to produce a consistent picture of all expenditures in the health care system. The accounts are therefore often viewed as a "gold standard" to which other partial surveys and data series can be compared.

But although they are probably the most widely used estimates of health expenditures and have the greatest credibility, the accounts too have their limitations. For instance, they are much less timely than other indicators because of the extensive work required to construct them. The data on total annual spending are usually delayed by a year (figures on national health expenditures for 1995 were available at the beginning of 1997); and the more detailed data on components of private spending are subject to greater delays. Also, because the data reflect total spending, they are not directly comparable to the premium data derived from surveys of employers. Nor do they provide information on underlying trends in insurance coverage.

Methodological Issues. The national health accounts classify health expenditures according to two major characteristics: type of expenditure and source of funds (see Table 4). That classification scheme is used as the basis for developing consistent estimates of national health spending in its entirety, as well as of its component parts.

To understand both the strengths and weaknesses of the NHA as a tool for analyzing health policy, readers should understand what analysts mean when they say the estimates are "consistent." The accounts are developed largely from numerous secondary data sources that serve various purposes and are not primarily intended to provide inputs to the NHA. Estimates of spending on hospital services, for example, come from the AHA's annual survey of hospitals. The primary sources of information on spending for physicians' services are the Census Bureau's Census

TABLE 3. ANNUAL GROWTH OF PREMIUMS FOR INSURANCE OFFERED THROUGH MAJOR PUBLIC EMPLOYEE GROUPS, 1990-1996
(In percent)

	1990	1991	1992	1993	1994	1995	1996
Federal Employees Health Benefits Program	9	6	7	10	2	-4	a
CalPERS[b]	17	11	6	1	-1	-4	-1
Minnesota State Employees Insurance Plan	14	10	6	6	3	-5	n.a.

SOURCE: Congressional Budget Office based on data from the Office of Personnel Management, the Health Plan Administration Division of CalPERS, and the Employee Insurance Division of the Minnesota State Employees Insurance Plan.

NOTE: CalPERS = California Public Employees Retirement System; n.a. = not available.

a. Decline of less than 0.5 percent.

b. Computed for the basic benefit package offered to members without supplemental Medicare coverage. Until recently, the CalPERS contract year ran from August 1 to July 31. In 1995, CalPERS began to switch its contract year to a calendar year basis; the 1995 data are for the contract year starting on August 1, 1995, and ending on December 31, 1996. As a result, the data underlying calculations for 1996 actually correspond to premium costs in calendar year 1997.

TABLE 4. NATIONAL HEALTH EXPENDITURES IN 1995, BY TYPE OF EXPENDITURE AND SOURCE OF FUNDS
(In billions of dollars)

Type of Expenditure	Total Spending	Private Spending					Government Spending		
		All Private Spending	By Consumers			Other Private Spending	All Government Spending	Federal	State and Local
			Total	Out of Pocket	Private Insurance				
National Health Expenditures	988.5	532.1	493.2	182.6	310.6	38.9	456.4	328.4	128.0
Health Services and Supplies	957.8	521.2	493.2	182.6	310.6	28.0	436.7	314.4	122.2
Personal health care	878.8	486.7	459.3	182.6	276.8	27.3	392.1	303.6	88.5
Hospital care	350.1	135.8	124.5	11.4	113.1	11.3	214.3	175.3	39.0
Physicians' services	201.6	137.6	133.9	36.9	97.0	3.7	64.0	50.9	13.1
Dental services	45.8	44.0	43.8	21.8	22.0	0.2	1.8	1.0	0.8
Other professional services	52.6	39.9	36.0	20.2	15.8	3.9	12.7	9.6	3.1
Home health care	28.6	12.8	9.3	6.0	3.3	3.4	15.8	13.8	2.0
Drugs and other nondurable medical items	83.4	72.0	72.0	49.8	22.1	n.a.	11.4	5.9	5.6
Vision products and other durable medical items	13.8	8.7	8.7	7.8	0.9	n.a.	5.1	5.0	0.1
Nursing home care	77.9	32.6	31.1	28.6	2.5	1.5	45.3	29.3	16.0
Other personal health care	25.0	3.3	n.a.	n.a.	n.a.	3.3	21.7	12.8	8.9
Program administration and net cost of private health insurance	47.7	34.5	33.9	n.a.	33.9	0.6	13.2	7.1	6.1
Government public health activities	31.4	n.a.	n.a.	n.a.	n.a.	n.a.	31.4	3.8	27.6
Research and Construction	30.7	10.9	n.a.	n.a.	n.a.	10.9	19.7	14.0	5.7
Research	16.6	1.4	n.a.	n.a.	n.a.	1.4	15.2	12.9	2.3
Construction	14.0	9.6	n.a.	n.a.	n.a.	9.6	4.5	1.1	3.4

SOURCE: Congressional Budget Office based on data from the Health Care Financing Administration, Office of the Actuary.

NOTE: n.a. = not applicable.

of Service Industries (performed every five years) and its Services Annual Survey, with additional information from the EHE surveys by the Bureau of Labor Statistics, the consumer price index, and such indirect measures of professional services as hospital admissions and inpatient days.[3] Estimates of spending for prescription drugs use data from the Census of Retail Trade, the Annual Survey of the Pharmaceutical Research and Manufacturers of America, the National Wholesale Druggist Association Annual Operating Survey, the Lilly Digest, and the IMS Drug Distribution Database.[4]

The accounts' data on sources of funding also come from multiple sources. HCFA uses administrative data on outlays for Medicare and Medicaid. Information on private insurance comes mainly from the employment cost index and the Consumer Expenditure Survey issued by the Bureau of Labor Statistics, plus the bureau's 1992 Survey of Expenditures for Health Care Plans by Employers and Employees, which is used as a benchmark. Those data are supplemented by information from a variety of private organizations such as the Health Insurance Association of America, the National Underwriter Company, the Blue Cross and Blue Shield Association, and the American Association of Health Plans (formerly the Group Health Association of America), as well as from surveys conducted by HCFA itself.

Thus, the data on which the accounts are based are not collected in a consistent way. Rather, HCFA analysts impose internal consistency when they allocate providers' revenues and expenditures to different payers by employing a common set of definitions and making sure their estimates by type of expenditure and source of funds agree.

But keeping track of health spending in a rapidly changing marketplace, using data sources that are modified only slowly over time, is difficult. Some of the new provider organizations and relationships that are now evolving may be missed by the existing surveys that the accounts use—and may not even fit easily into the NHA structure (see Box 1). Consequently, HCFA analysts are continually seeking new

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3. See, for example, "Revisions to the National Health Accounts and Methodology," *Health Care Financing Review*, vol. 11, no. 4 (Summer 1990), pp. 42-54; and Katharine R. Levit and others, "National Health Expenditures, 1993," *Health Care Financing Review,* vol. 16, no. 1 (Fall 1994), pp. 247-294.

4. James S. Genuardi, Jean M. Stiller, and Gordon R. Trapnell, "Changing Prescription Drug Sector: New Expenditure Methodologies," *Health Care Financing Review*, vol. 17, no. 3 (Spring 1996), pp. 191-204.

BOX 1.
DATA COLLECTION AND ANALYSIS IN A CHANGING HEALTH CARE MARKETPLACE

With rapid changes occurring in the marketplace for health care, the national health accounts may have a harder time tracking financial flows than they used to. The shift away from conventional fee-for-service insurance to managed care plans, and the increasing vertical integration of the health care industry, pose particular problems.

Although the accounts use a system for classifying expenditures that is nominally based on services, spending is actually classified by the type of establishment providing the service or by the type of product consumed. That approach makes determining total expenditures difficult for certain services—such as home health or skilled nursing care—that several types of establishments may provide. For instance, the main providers of home health services are independent home health agencies. But growing numbers of hospitals are also providing those services, as are some nursing homes. Similarly, hospitals are increasingly providing skilled nursing care in special units or through such means as swing beds. To avoid double-counting, the national health accounts classify the home health and skilled nursing services that hospitals provide as hospital services. Thus, spending for home health services and nursing home care in the accounts reflects only the spending of freestanding establishments.

Another complicating factor is that the accounts use Standard Industrial Classification (SIC) codes and Census product codes to determine the types of establishments and products to include. For example, establishments are included if they fall into the SIC80 grouping. But the types of establishment covered by that code reflect an essentially fee-for-service world; there is no separate category for health maintenance organizations (HMOs), let alone any of the more complex forms of integrated health care delivery systems. In general, services provided by HMOs are classified in the SIC codes for individual service categories. But the services provided by group- and staff-model HMOs cannot be broken down in that way. Instead, revenues received for services provided on site by such HMOs are classified under the SIC code for physicians. But any payments those HMOs make to other off-site providers are classified under the corresponding SIC codes for such providers.

data sources and approaches for generating estimates of national health expenditures.[5]

In addition to the standard NHA tables, which HCFA releases every year, the agency periodically produces tabulations of health expenditures by the sponsor of health care rather than the source of funds.[6] The most recent such tabulation provides spending estimates through 1994.[7] For some types of spending, data from the national health accounts can be classified by sponsor directly, but for Medicare and private insurance spending, additional data are needed. The sponsors of private health insurance, for example, include federal, state, and local governments (in their role as employers), private-sector employers, and households. To make those allocations, HCFA analysts use data from the Bureau of Economic Analysis, the Census Bureau, the Office of Personnel Management, and the Bureau of Labor Statistics, as well as from their own agency. The resulting breakdown of private health expenditures into employer and employee contributions, individual-policy premiums, and out-of-pocket spending offers important insights into the factors that contribute to overall trends in private-sector health spending.[8]

Recent Trends in Private Health Expenditures in the NHA. Both the source-of-funds and spending-by-sponsor tables confirm the recent slowdown in private health spending. The source-of-funds data show that the growth rate of private spending for health insurance fell steadily between 1990 and 1994, reaching 2.5 percent in that year and staying at about that level in 1995 (see Table 5). Growth rates for Medicare spending, by contrast, demonstrated no such reduction, rising from 9.4 percent a year to 11.6 percent.

The spending-by-sponsor data also show a declining rate of growth in private health insurance expenditures. Furthermore, those data indicate that different

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5. See "Revisions to the National Health Accounts and Methodology"; and Genuardi, Stiller, and Trapnell, "Changing Prescription Drug Sector."

6. The distinctions between sponsors and sources of funds in the accounts are somewhat ambiguous. In NHA nomenclature, the sponsors of health care are primarily businesses, households, and governments. They provide the funding to the sources of funds, who are the actual payers of bills—health insurers and governments, for example. Federal, state, and local governments are both sponsors of health care (in their role as employers) and sources of funds (in their role as payers). In addition, some payments made by sponsors flow directly into the health care system—as, for example, when federal and state governments provide health services directly.

7. See Cowan and others, "Business, Households, and Government."

8. Last year marked the first time HCFA developed a way to distinguish between employee contributions and individual-policy premiums.

TABLE 5. NATIONAL HEALTH EXPENDITURES BY SOURCE OF FUNDS, 1990-1995 (By calendar year)

Source of Funds	1990	1991	1992	1993	1994	1995
In Billions of Dollars						
All National Health Expenditures	697.5	761.7	834.2	892.1	937.1	988.5
Private	413.1	441.4	478.8	505.5	517.3	532.1
Private health insurance	232.4	252.3	277.0	295.4	302.7	310.6
Out-of-pocket payments	148.4	155.0	165.8	171.6	176.0	182.6
Other private funds	32.3	34.1	36.0	38.5	38.6	38.9
Government	284.3	320.3	355.4	386.5	419.9	456.4
Federal	195.8	224.4	253.9	277.6	301.9	328.4
Medicare	112.1	123.0	138.3	150.9	167.6	187.0
State and local	88.5	95.9	101.6	108.9	118.0	128.0
Percentage Change from Previous Year						
All National Health Expenditures	12.1	9.2	9.5	6.9	5.1	5.5
Private	11.7	6.8	8.5	5.6	2.3	2.9
Private health insurance	14.1	8.6	9.8	6.6	2.5	2.6
Out-of-pocket payments	9.0	4.4	7.0	3.5	2.6	3.7
Other private funds	8.1	5.6	5.5	7.1	0.1	0.8
Government	12.7	12.7	11.0	8.7	8.6	8.7
Federal	12.0	14.6	13.1	9.4	8.7	8.8
Medicare	9.4	9.7	12.4	9.1	11.0	11.6
State and local	14.5	8.3	6.0	7.2	8.4	8.4

SOURCE: Congressional Budget Office based on data from the Health Care Financing Administration, Office of the Actuary.

components of such expenditures grew at different rates, with spending on individual-policy premiums actually declining in 1994 (see Table 6).

Data broken down by source of funds shed some light on why private-sector spending for insurance is growing much more slowly than before. Such spending consists of two parts: expenditures for personal health services (which represent spending on health care benefits), and the administrative costs of private insurance (which include the profits of insurance companies and health plans). Although growth rates for the first part fell significantly in the 1990s, they did not fall as far as growth rates for total private health insurance expenditures (see Table 7). Moreover, the growth rate for spending on personal health services actually rose by a full percentage point (to 4.6 percent) in 1995, while the growth rate for total private health insurance spending was only 2.6 percent. A large drop in the rate of growth of administrative costs between 1993 and 1995 accounts for the difference. Such a drop is consistent with greater efficiency, falling profits, or both.

Analysts should be careful, however, when interpreting data from the national health accounts. Both types of NHA tables—by sponsor and by source of funds —show total rather than per capita spending (see Box 2). Year-to-year changes in total spending reflect changes in the number of people covered as well as changes in spending per person. Thus, for example, the 1994 reduction in expenditures for individual-policy premiums reflects a drop in the number of people purchasing individual coverage. According to the Consumer Expenditure Survey, the number of individual policies held per household fell by about 7 percent between 1993 and 1994, while the average premium for an individual policy rose by 3 percent.[9]

FACTORS CONTRIBUTING TO SLOWER GROWTH IN PRIVATE HEALTH CARE SPENDING

In spite of their different perspectives and partial views of the health care system, all of the indicators of private-sector health spending tell a compelling story of slower growth in the 1990s. Part of that slowdown resulted from lower inflation throughout the economy: the annual increase in the consumer price index for all urban consumers declined steadily from 5.4 percent in 1990 to 3.0 percent in 1992 and has been relatively stable since then. The growth of private health insurance spending, however, continued to slow after 1992, reflecting fundamental transformations occurring in private insurance markets.

9. Cowan and others, "Business, Households, and Government."

TABLE 6. PRIVATE HEALTH EXPENDITURES BY SPONSOR, 1990-1994
(By calendar year)

	1990	1991	1992	1993	1994
In Billions of Dollars					
Employers' Contributions for Private Health Insurance Premiums[a]	181.1	194.5	213.0	228.2	242.7
Employees' Contributions for Private Health Insurance Premiums[a]	33.3	37.5	40.4	44.1	47.7
Individual-Policy Premiums[a]	18.0	19.9	23.2	24.2	22.9
Out-of-Pocket Spending	148.4	155.1	164.4	169.4	174.9
Percentage Change from Previous Year					
Employers' Contributions for Private Health Insurance Premiums[a]	14.7	7.4	9.5	7.2	6.3
Employees' Contributions for Private Health Insurance Premiums[a]	16.0	12.5	7.9	9.0	8.2
Individual-Policy Premiums[a]	5.0	10.7	16.5	4.3	-5.1
Out-of-Pocket Spending	n.a.	4.5	6.0	3.0	3.2

SOURCE: Cathy A. Cowan and others, "Business, Households, and Government: Health Spending, 1994," *Health Care Financing Review,* vol. 17, no. 4 (Summer 1996), pp. 157-178.

NOTE: n.a. = not available.

a. Includes private health insurance expenditures for personal health care plus the net cost of private insurance.

TABLE 7. PRIVATE HEALTH EXPENDITURES BY SOURCE OF FUNDS, 1990-1995 (By calendar year)

Source of Funds	1990	1991	1992	1993	1994	1995
In Billions of Dollars						
All Private Health Expenditures						
Private health insurance	232.4	252.3	277.0	295.4	302.7	310.6
Out-of-pocket payments	148.4	155.0	165.8	171.6	176.0	182.6
Other private funds	32.3	34.1	36.0	38.5	38.6	38.9
Private Health Spending for Personal Health Services						
Private health insurance	201.8	221.6	243.2	255.4	264.5	276.8
Out-of-pocket payments	148.4	155.0	165.8	171.6	176.0	182.6
Other private funds	21.5	23.4	24.4	26.1	26.2	27.3
Private Health Spending for Administrative Services[a]						
Private health insurance	30.6	30.7	33.8	40.1	38.2	33.9
Other private funds	0.6	0.6	0.6	0.6	0.6	0.6
Percentage Change from Previous Year						
All Private Health Expenditures						
Private health insurance	14.1	8.6	9.8	6.6	2.5	2.6
Out-of-pocket payments	9.0	4.4	7.0	3.5	2.6	3.7
Other private funds	8.1	5.6	5.5	7.1	0.1	0.8
Private Health Spending for Personal Health Services						
Private health insurance	12.4	9.8	9.8	5.0	3.6	4.6
Out-of-pocket payments	9.0	4.4	7.0	3.5	2.6	3.7
Other private funds	5.7	8.8	4.4	6.8	0.6	4.3
Private Health Spending for Administrative Services[a]						
Private health insurance	26.2	0.2	10.1	18.6	-4.6	-11.4
Other private funds	10.9	3.7	-3.9	-1.0	3.8	4.5

SOURCE: Congressional Budget Office based on data from the Health Care Financing Administration, Office of the Actuary.

a. Includes administrative expenses and the net cost of insurance—which, for private health insurers, accounts for net additions to reserves, rate credits and dividends, premium taxes, and profits or losses. This category is calculated as the difference between earned premiums and incurred benefits.

BOX 2.
DERIVING PER CAPITA SPENDING ESTIMATES FROM THE NATIONAL HEALTH ACCOUNTS

Using the information on total spending in the national health accounts to derive estimates of changes in spending per person is difficult. Overall per capita expenditures can be estimated by dividing total personal health expenditures by the total population. Beyond that overall indicator, however, determining spending per person for people with different types of coverage raises important conceptual questions, because the appropriate measure of spending may depend on the particular policy issue being examined. For example, a person with private health insurance pays for some health care out of pocket and may also receive some publicly financed benefits from Medicare, Medicaid, or public health programs. Certain policy questions may require analyses that focus on all health expenditures of people with private coverage, but in other instances only the spending financed by private insurance may be relevant.

Trying to identify and estimate the size of the covered population for an analysis of private health expenditures, and associating that population with the appropriate spending measure, also raises both conceptual issues and measurement problems. The underlying conceptual question is essentially the same whether defining the covered population or specifying the appropriate spending measure. Analysts must decide whether the population of interest is everyone who has private insurance coverage (which would include Medicare beneficiaries with private supplemental policies and Medicaid beneficiaries who also have private coverage), or only those people whose primary coverage is private.

If the focus is only on primary coverage, then studies should exclude people with both private and public coverage and their associated private expenditures. But doing that could pose serious measurement challenges. Private insurance spending in the national health accounts, for example, includes premiums for private Medicare supplemental policies. Separating the private insurance spending of Medicare beneficiaries from that of people whose primary insurance coverage is private requires analysts to make broad assumptions about spending patterns.

The findings from surveys of employers suggest that employers' costs are increasing more slowly for two main reasons: because the growth in premium costs per enrollee has slowed as a result of more competitive markets and shifts to managed care, and because employers are shifting costs to employees in various ways. Those ways include raising employees' contributions for premiums, increasing cost-sharing requirements, changing covered benefits, reducing coverage of workers and their dependents, and reducing coverage of retirees.

Shifts to Managed Care

A major factor in cutting employers' health care costs has been the steady shift of workers from conventional fee-for-service plans to various forms of managed care plans that is associated with an increasingly competitive health insurance market. (See Box 3 for descriptions of different kinds of health plans.) The resulting competition among plans fighting to maintain their share of the market has caused premiums for all types of health plans, including fee-for-service ones, to increase more slowly (see Table 8).

A recent study by Alan Krueger and Helen Levy of Princeton University argued that the shift to managed care has not been directly responsible for the drop in employers' health care costs because average premiums for managed care plans are almost as high as those for fee-for-service plans.[10] According to Peat Marwick, for example, premiums for family coverage in 1996 for employers with 200 or more workers averaged about $5,400 for conventional fee-for-service plans, $5,100 for health maintenance organizations (HMOs), $5,400 for preferred provider organizations (PPOs) and $5,500 for point-of-service (POS) plans.[11] However, that argument misses the point of the effect of market competition on premiums. The appropriate comparison is not between premiums for fee-for-service and managed care plans but between premiums for fee-for-service plans in the presence and absence of competition from other types of health plans. In both competitive and noncompetitive markets, the premiums charged by different types of plans might vary relatively little in any given year, but the growth of those premiums would be slower in a competitive market. Moreover, focusing on average premiums nationwide ignores the large variation in premiums for different types of plans that occurs within different regions of the country. In some areas, HMOs appear to have significantly lower premiums than conventional plans.

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10. Alan B. Krueger and Helen Levy, *Accounting for the Slowdown in Employer Health Care Costs*, Working Paper No. 370 (Princeton, N.J.: Princeton University, Industrial Relations Section, December 1996).

11. KPMG Peat Marwick, *Health Benefits in 1996* (n.p.: KPMG Peat Marwick, October 1996), p. 10.

BOX 3.
TYPES OF HEALTH INSURANCE PLANS

As health insurers and health plans respond to an increasingly competitive marketplace, drawing clear distinctions among different types of plans becomes more difficult. Most surveys of employers use four general designations of health plans: conventional health insurance, health maintenance organizations (HMOs), preferred provider organizations (PPOs), and point-of-service (POS) plans. But those concepts are fluid, and health plans with similar features may classify themselves in different ways. The following descriptions were adapted from the ones that KPMG Peat Marwick used in its 1995 survey of employers.[1]

Conventional Health Insurance

Conventional health insurance plans are also known as indemnity, or fee-for-service, plans. People enrolled in them may receive care from any physician or hospital that they choose. Generally, they must pay for some initial amount of health care spending themselves (the deductible) and pay coinsurance on any spending beyond that amount. Providers are paid on a fee-for-service basis.

Health Maintenance Organization

Enrollees in an HMO generally must receive all of their care from the HMO's physicians and from hospitals with which the HMO contracts; otherwise, the expense is not covered. The services that they receive from HMO physicians are typically covered in full, apart from a flat dollar copayment for an office visit. (Copayments may also be required for such items as prescription drugs.) Providers often bear some financial risk for the costs of the services they provide or order on behalf of their patients (although physicians in some types of HMOs may receive a salary).

Preferred Provider Organization

Enrollees in a PPO may receive services from any provider they choose, but typically they face significantly lower deductibles and coinsurance rates if they use physicians and hospitals that are part of the PPO's network. The PPO pays providers in the network on a fee-for-service basis. Unlike conventional insurance plans, however, those fees are negotiated between providers and the plan.

Point-of-Service Plan

POS plans are also known as HMO/PPO hybrids or open-ended HMOs. As with a PPO, enrollees may choose to receive services from providers who are not members of the POS plan's network, as well as from those who are members. When enrollees use network providers, a POS plan functions much like an HMO. When they use other providers, by contrast, those providers are typically paid on a fee-for-service basis and enrollees are responsible for deductibles and coinsurance.

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1. KPMG Peat Marwick, *Health Benefits in 1995* (n.p.: KPMG Peat Marwick, August 1995), p. 10.

TABLE 8. ANNUAL GROWTH OF HEALTH INSURANCE PREMIUMS FOR FIRMS WITH 200 OR MORE EMPLOYEES, 1991-1996
(By calendar year, in percent)

Type of Insurance Plan	1991	1992	1993	1994	1995	1996
Conventional Fee-for-Service Plan	12.0	11.0	8.5	5.1	2.7	1.2
Health Maintenance Organization	12.1	9.8	8.3	5.3	0.4	-0.4
Preferred Provider Plan	10.1	10.6	8.2	3.2	3.5	0.6
Point-of-Service Plan	n.a.	12.4	4.9	5.9	2.4	1.2
All Plans	11.5	10.9	8.0	4.8	2.1	0.5

SOURCE: KPMG Peat Marwick, *Health Benefits in 1996* (n.p.: KPMG Peat Marwick, October 1996).

NOTE: n.a. = not available.

Certainly, many employers believe that switching to managed care plans will lower their health care costs—a factor that in itself would promote competition among plans. For example, almost 90 percent of the firms responding to a survey conducted by Jack Meyer and colleagues viewed switching to managed care as an effective strategy for controlling costs.[12]

The resulting shift has unquestionably been dramatic. The Bureau of Labor Statistics' Employee Benefits Survey shows that the proportion of full-time insured workers at medium to large private establishments (those with 100 or more workers) who were enrolled in conventional fee-for-service plans fell from 74 percent in 1989 to 50 percent in 1993.[13] More recent data from Peat Marwick suggest that the decline has continued, with enrollment rates in conventional fee-for-service plans among large firms (those with at least 200 employees) falling to about 25 percent in 1996—the lowest level ever.[14] Of course, not all of that shift reflects voluntary choices by employees. The proportion of workers in large firms who have a fee-for-service plan available to them has dropped precipitously, from almost 90 percent in 1988 to less than 60 percent in 1996.

Similar changes are occurring among small firms. According to the Employee Benefits Survey, the proportion of full-time insured workers in small private establishments (those with fewer than 100 workers) who were enrolled in conventional plans fell from 74 percent to 55 percent between 1990 and 1994. That decline has also apparently persisted. Gail Jensen and colleagues found that in firms with fewer than 50 employees, the percentage of insured workers with conventional coverage dropped from 70 percent to 30 percent between 1993 and 1995—a remarkable decline in only two years.[15] During that period, many small firms began offering just a managed care plan (either an HMO, a preferred provider plan, or a POS plan), and by 1995, 60 percent of companies with fewer than 50 employees had adopted that strategy.[16] Typically, those companies had previously offered only a conventional plan. Two factors apparently led them to switch: high deductibles in

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12. Jack A. Meyer, Diane M. Naughton, and Michael J. Perry, *Assessing Business Attitudes on Health Care*, prepared for the Robert Wood Johnson Foundation (Washington, D.C.: Economic and Social Research Institute, October 1996).

13. Cited in Department of Labor, *A Look at Employers' Costs of Providing Health Benefits* (July 31, 1996).

14. KPMG Peat Marwick, *Health Benefits in 1996*.

15. Personal communication from Gail A. Jensen, professor at the Institute of Gerontology, Wayne State University, on March 5, 1997.

16. Gail A. Jensen and others, "The New Dominance of Managed Care: Insurance Trends in the 1990s," *Health Affairs,* vol. 16, no. 1 (January/February 1997), pp. 125-136.

their conventional plans and large premium increases for those plans between 1992 and 1993. (Among small firms that switched, average conventional premiums had risen much more rapidly than premiums for HMOs and PPOs, and also more rapidly than conventional premiums among all small firms.)

Although the proportion of workers who are able to choose conventional fee-for-service plans is clearly shrinking, whether the overall number of plans available to them is expanding or contracting is less clear. Jensen and colleagues, for example, reported that the proportion of all workers who were offered a choice of health plans by their employers increased between 1993 and 1995 (from 56 percent to 62 percent). They also found that when employers started offering a second plan, it was typically a managed care plan. But Peat Marwick's most recent survey found that employers were reducing their choice of health plans. The proportion of firms with 200 or more employees that offered a choice of plans fell from 59 percent to 54 percent between 1995 and 1996. That reduction was especially marked among firms with 200 to 999 workers.

Increases in Employee Contributions for Premiums

According to the national health accounts, the share of premiums that employees pay themselves is rising slowly over time. A significant factor in that increase is the growing proportion of workers who have to contribute to the costs of their health insurance. Although the estimates disagree about the extent to which that has occurred, they all agree that it has. For example:

- The Employee Benefits Survey indicates that in 1993 less than 40 percent of full-time insured workers in medium to large private establishments had their premiums for individual coverage paid fully by their employer. That was down from more than half just four years earlier. Likewise, the proportion of such workers with family coverage whose premiums were fully paid dropped by 10 percentage points over the same period; by 1993, only about one-quarter of them had to make no premium contribution.

- An analysis of the Current Population Survey (CPS) by the Lewin Group indicates that of all full-time insured workers, 31 percent had health insurance premiums wholly paid by their employer in 1994, compared with 40 percent in 1988.[17]

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17. John Sheils and Lisa Alecxih, *Recent Trends in Employer Health Insurance Coverage and Benefits*, prepared for the American Hospital Association (Fairfax, Va.: Lewin Group, September 3, 1996).

- Meyer and colleagues found that the proportion of companies in the Hay/Huggins annual surveys that paid the full cost of dependents' coverage fell from 23 percent in 1991 to 15 percent in 1995.

- Peat Marwick reports that 52 percent of employees with single coverage from a conventional fee-for-service plan and 25 percent with family coverage made no premium contribution in 1988. By 1996, those rates had dropped to 35 percent and 14 percent, respectively. (The findings are for firms with at least 200 employees.)

Not only are growing proportions of workers contributing to their premiums, but the amount they must contribute has also risen. The Department of Labor, using data from the Employee Benefits Survey, found that the average premiums paid by contributing employees, adjusted for inflation, generally rose in the early 1990s. (The exception was for individual coverage at medium to large firms.)

Whether premium contribution requirements have increased in recent years, however, is less clear. Both the Peat Marwick and Foster Higgins annual surveys provide detailed information on such requirements, breaking down the data by type of plan and size of firm. Those data suggest that the share of premiums paid by workers may still be increasing. But in the case of Peat Marwick, the increase reflects, at least in part, the rising proportion of employees who have to make contributions. (Peat Marwick includes workers whose coverage is fully paid by the employer in estimating the average percentage of premiums paid by employees. Foster Higgins, by contrast, estimates employees' contributions only for firms that require them.) Moreover, the data from both sources present a confusing picture of trends in premium contribution requirements, with considerable volatility from year to year (see the appendix for more details).

Some studies have used Peat Marwick's data as part of broader analyses of trends in employment-based premiums. One such study by Jon Gabel and colleagues compared results from the Peat Marwick/Wayne State University 1993 survey of employers with 1988 data from the Health Insurance Association of America.[18] It found that over the 1988-1993 period, employee contributions increased for both individual and family coverage in conventional plans and HMOs. In following up that study, Jensen and colleagues reported that employees contributed the same share of premiums, on average, in 1995 as in 1993. But the trends for small and large firms differed, with small firms seeing reductions in employee contribution rates and large firms generally experiencing increases. The reduction for small firms may reflect their major shift from indemnity to managed care plans during that period.

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18. Jon Gabel and others, "The Health Insurance Picture in 1993: Some Rare Good News," *Health Affairs*, vol. 13, no. 1 (Spring (I) 1994), pp. 327-336.

Jensen's analysis is one of few recent studies to provide insights into the types of premium contribution strategies used by employers who offer multiple plans. The authors estimated that less than 8 percent of firms offering more than one plan required no contribution from employees. They also found that one-third of workers who had a choice of health plans faced a level contribution rule, meaning that their employer contributed the same dollar amount regardless of the plan chosen. Under such a rule, employees selecting more expensive plans have to pay all of the additional costs themselves, which gives them a strong incentive to choose lower-cost plans. A further 25 percent of workers faced a level percentage rule, meaning that their employer contributed the same percentage of the premium regardless of the plan chosen. Under that type of rule, employees who opted for expensive plans would receive a higher dollar contribution from their employer than those who chose less expensive plans, but they would also have to make a larger premium contribution themselves. In addition, for more than one-fifth of employees, the firm's premium contribution varied according to the worker's salary.

Higher Cost-Sharing Requirements

The available information also suggests that cost-sharing requirements are increasing for all types of plans, although the patterns of change vary considerably among different types. Some of the apparent inconsistencies may result from the difficulty in clearly distinguishing between PPO and POS plans. Jensen and colleagues, for example, maintain that managed care plans are growing more alike over time, and cost-sharing requirements in PPO and POS plans are converging.

Deductibles appear to have risen significantly since 1988, although most of that growth apparently occurred before 1993. According to Gabel and colleagues, average deductibles for conventional plans increased by 9 percent to 10 percent a year over the 1988-1993 period. Deductibles in PPOs grew considerably faster over those five years, more than doubling for out-of-network care. The Jensen follow-up study suggests that deductibles in conventional plans continued to rise after 1993, but more slowly than before. By contrast, average deductibles in PPOs fell after 1993, helping to keep those plans competitive in the marketplace. Peat Marwick's annual surveys paint a more ambiguous picture, however. In those surveys, reported deductibles for conventional plans, PPOs, and POS plans all demonstrated considerable year-to-year volatility between 1993 and 1996, with no clear trends emerging.[19]

19. KPMG Peat Marwick, *Health Benefits in 1996,* p. 33.

In contrast to the evidence on deductibles, the study by Gabel and colleagues suggests that coinsurance rates in conventional plans changed little over the 1988-1993 period, although rates for out-of-network services in PPOs increased considerably. The more recent Peat Marwick data indicate that coinsurance rates for conventional plans and PPOs have remained relatively stable since 1993, but out-of-network rates for POS plans have risen markedly. The Peat Marwick data also show copayments for HMOs growing significantly in recent years. In 1993, 23 percent of HMOs had no copayment for physician visits, and more than 60 percent had copayments of $5 or less. Three years later, only 10 percent of HMOs had no copayment, and just one-third had copayments of $5 or less.

Despite the indications that cost-sharing requirements have generally increased among all types of plans, workers' average out-of-pocket payments may actually have declined in the 1990s. (That outcome would be consistent with the slow growth in total out-of-pocket payments in the national health accounts.) The reason is that many employees moved to managed care plans with lower cost-sharing requirements than they had before. Indeed, raising the cost-sharing requirements for fee-for-service plans may be one way employers increase the incentives for their workers to choose managed care.

Changes in Covered Benefits

The services that health plans cover may be changing over time, but determining that is difficult because surveys of employers' health benefits typically do not provide detailed information on what is covered. However, recent research suggests that HMO benefits are slowly expanding, whereas those of conventional fee-for-service plans are relatively stable.[20] Analyses that compare the premium increases of HMOs and fee-for-service plans need to take those changes in benefits into account.

In at least one area—preventive health services—covered benefits may be expanding in fee-for-service plans as well. Preventive health care has generally been well covered by HMOs (and, more recently, by POS plans), but in the past it was much less likely to be covered by conventional fee-for-service plans and PPOs. Data from the Peat Marwick surveys suggest that fee-for-service plans and PPOs are now expanding their preventive health coverage, presumably in response to market pressures. Thus, for example, 53 percent of employees enrolled in conventional plans in 1996 had benefit packages that covered physical examinations for adults, compared with 37 percent in 1993. The figures for employees enrolled in PPOs were

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20. Center for the Study of Health Systems Change, *Tracking Health Care Costs: A Slowing Down of the Rate of Increase*, Issue Brief No. 6 (Washington, D.C.: Center for the Study of Health System Change, January 1997).

72 percent in 1996 versus 50 percent in 1993. Coverage of well-baby and well-child care also rose significantly in fee-for-service plans and PPOs. How such benefit expansions may be affecting spending is uncertain. Increased coverage of preventive services results in greater use of those services, as well as follow-up services and diagnostic tests, thereby raising spending. But greater use of preventive health services may also lower some future health expenditures, especially in the case of preventive health services for children.

Another rapidly growing trend is for employers to "carve out" certain benefits—such as mental health services, prescription drugs, dental care, or vision care—from their main benefit package and offer them separately. (Those benefits are typically subject to more restrictions than other benefits, even when they have not been carved out.) More than 70 percent of the firms in Meyer's survey said such carve-outs were an effective way to control health care costs. Data from the Foster Higgins surveys suggest that the use of carve-outs is increasing rapidly among employers with at least 500 workers. The proportion of such employers who established a separate PPO for mental health and substance abuse benefits rose from 7 percent in 1993 to 20 percent in 1995. The proportion of large employers who established separate managed prescription drug plans also rose dramatically between 1993 and 1994, then leveled off in 1995. By that year, the majority of very large employers—those with 5,000 or more workers—carved out their prescription drug benefits.[21]

Carve-outs let health plans use distinct management techniques to control the usage and costs of particular services—as, for example, when mental health benefits are offered only through a freestanding managed care plan for behavioral health, or prescription drugs are offered only through a pharmacy benefit management program. Cost-sharing requirements may also differ; prescription drug plans, for example, may have separate deductibles, and different coinsurance requirements for mental health benefits are common. In addition, employers may require separate premiums for coverage of the carved-out benefits, although workers are unlikely to face separate premiums for mental health benefits.

Carving out mental health benefits is a strategy that focuses on improving the management of a costly medical benefit that has traditionally been subject to more restrictions than other benefits. Recent research suggests that an important factor in employers' decisions to carve out mental health benefits is the desire to limit risk

21. See Foster Higgins, *National Survey of Employer-Sponsored Health Plans, Report/1995* (New York: Foster Higgins, 1996).

selection among the health plans that they offer to their employees.[22] By carving out mental health benefits from all plans and offering them through a single vendor, employers can reduce health plans' incentives to avoid enrolling workers who might use more mental health services than average. To maintain some level of access and quality of care while controlling costs, employers may have competitive contracts for mental health vendors that are rebid periodically. Many of those contracts provide for the underwriting risks to be shared between the vendor and the employer, so that the vendor's incentives to lower costs are less than they would be under a full risk-bearing arrangement.

Less Coverage of Active Workers and Dependents

Data from the CPS indicate that the percentage of people with employment-based health coverage has declined throughout the 1990s. Using CPS data, the Lewin Group estimates that about 74 percent of workers and dependents had such coverage in 1995, down from a high of almost 78 percent in 1990.[23] Nearly all of that decline was accounted for by reductions in coverage for the dependent children and spouses of covered workers. Some of that drop may have led to more dependents being enrolled in the Medicaid program. Or, conversely, some low-income workers may have given up family coverage because their children became eligible for Medicaid (the so-called "crowding out" effect), although researchers differ considerably in their estimates of the magnitude of any such effect.[24]

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22. Richard G. Frank and others, "Some Economics of Mental Health 'Carve-Outs'," *Archives of General Psychiatry*, vol. 53 (October 1996), pp. 933-937.

23. The Lewin estimates were adjusted to account for changes in the survey's methodology that occurred in 1995.

24. See, for example, David M. Cutler and Jonathan M. Gruber, *Does Public Insurance Crowd Out Private Insurance?* Working Paper No. 5082 (Cambridge, Mass.: National Bureau of Economic Research, April 1995); Cutler and Gruber, "Medicaid and Private Insurance: Evidence and Implications," *Health Affairs*, vol. 16, no. 1 (January/February 1997), pp. 194-200; Lisa Dubay and Genevieve Kenney, "Did Medicaid Expansions for Pregnant Women Crowd Out Private Coverage?" *Health Affairs*, vol. 16, no. 1 (January/February 1997), pp. 185-193; Paul W. Newacheck, Dana C. Hughes, and Miriam Cisternas, "Children and Health Insurance: An Overview of Recent Trends," *Health Affairs*, vol. 14, no. 1 (Spring 1995), pp. 244-255; Lara Shore-Sheppard, "The Effect of Expanding Medicaid Eligibility on the Distribution of Children's Health Insurance Coverage," paper presented at the May 1996 Cornell and Princeton University Conference on Reforming Social Programs (University of Pittsburgh, September 1996); and John Holohan, "Crowding Out: How Big a Problem?" *Health Affairs*, vol. 16, no. 1 (January/February 1997), pp. 204-206.

Less Coverage of Retirees

Many businesses that have traditionally financed health care coverage for retirees are reviewing and modifying their policies in an effort to control the costs of retiree benefits. For example, Foster Higgins reported that the proportion of large employers offering coverage to retired workers under age 65 fell from 46 percent in 1993 to 41 percent in 1995. The corresponding figures for retirees eligible for Medicare were 40 percent in 1993 and 35 percent in 1995. Foster Higgins also reported that carve-outs for prescription drugs—which account for a large share of employers' costs for retiree health coverage—expanded significantly over that period.

Similarly, Hay/Huggins found that the majority of respondents to its 1995 survey had changed their benefit plans for retirees or were considering such changes.[25] The most common changes included reducing benefits, increasing the minimum age or length of service for eligibility, raising the contribution requirements for dependents or retirees, and shifting to a level contribution rule. All of those strategies effectively make retirees responsible for a greater proportion of their health care costs. For retired workers younger than 65 (the age of Medicare eligibility), such cuts shift costs directly to the retiree, resulting in higher out-of-pocket payments for health care, less use of health services, or both. In the case of retirees age 65 and over, benefit reductions shift costs not only to the retiree but to Medicare and (in the case of low-income retirees) to Medicaid. Cuts in retiree benefits may make HMOs more attractive to Medicare beneficiaries. (Frequently, HMOs offer Medicare beneficiaries substantial supplemental benefits for little or no additional premium.)

HOW SUSTAINABLE IS THE SLOWDOWN IN PRIVATE HEALTH CARE SPENDING?

A fundamental question about the recent slowdown in private-sector spending for health care is whether it will continue. That is, does the lower growth of spending represent a one-time shift in the level of health expenditures (albeit spread over several years), or has a permanent reduction in the rate of growth occurred? Some health policy analysts believe that once competitive forces have wrung inefficiencies out of the system, the demands created by medical advances and new technologies will drive spending back to its rapid growth rates of the 1980s and early 1990s. Others, by contrast, argue that the competitive transformation of the health care industry has resulted in a system in which continuing market pressures will result in permanently lower rates of spending growth.

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25. Hay/Huggins, *Benefits Report* (Washington, D.C.: Hay/Huggins, 1995).

Although future spending trends are inevitably uncertain, signs of renewed upward pressure on spending appear to be emerging. The national health accounts indicate that the rate of growth of private insurance spending, which was only 2.5 percent in 1994, remained virtually unchanged the following year. But that apparent stability is misleading. The growth of private health insurance spending for personal health care fell to its lowest rate in recent years (3.6 percent) in 1994, then increased by a full percentage point in 1995. However, that rise was offset by a significant drop in the administrative costs of private health insurance—possibly indicating lower profits for insurance companies.

Although in recent years private insurance spending for personal health care has grown at less than half the rate of 1991 and 1992, and year-to-year fluctuations are to be expected, growth rates for private insurance could start to rise again if insurers' profits are being squeezed. Indeed, some health industry experts are predicting higher growth rates in 1997 and further increases in 1998.

The latest projections by the Congressional Budget Office (CBO) also assume that private health insurance spending will grow more quickly over the next two or three years than its current low rate, reaching about 5.8 percent by 2002 and then remaining around that rate (see Table 9).[26] Even with the increases, however, those rates will still be significantly lower than the growth rates of the 1980s and early 1990s. Growth rates for out-of-pocket spending are also projected to increase to 5.8 percent by 2002 and remain relatively stable thereafter.

Because the health care industry is changing so rapidly, all projections are inevitably subject to great uncertainty. Some of the uncertainty about the current slowdown involves the relative role of prices and utilization. Sources of uncertainty about the future include the effects of consolidation in the health care industry, the cyclical nature of the industry's profits, the development and use of new technologies, new purchasing strategies by employers, and a possible backlash against managed care.

Prices Versus Utilization

Part of the puzzle in interpreting current trends in health spending is whether slower growth in premiums reflects slower growth in prices, use of health care, or both. The relative importance of those factors today has significant implications for future spending growth.

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26. Congressional Budget Office, *The Economic and Budget Outlook: Fiscal Years 1998-2007* (January 1997), Appendix H.

TABLE 9. PROJECTIONS OF NATIONAL HEALTH EXPENDITURES BY SOURCE OF FUNDS, 1996-2007 (By calendar year)

Source of Funds	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
In Billions of Dollars												
All National Health Expenditures	1,032	1,087	1,150	1,221	1,297	1,378	1,467	1,563	1,665	1,777	1,897	2,026
Private	549	571	597	628	661	697	737	779	823	870	919	972
Private health insurance	319	330	346	364	384	405	428	453	479	506	535	565
Out-of-pocket payments	191	199	208	218	230	243	257	272	288	305	323	342
Other private funds	40	42	43	45	47	49	52	54	57	59	62	65
Government	482	516	552	593	636	681	730	784	842	907	977	1,055
Federal	349	375	404	436	469	504	542	584	630	681	737	799
Medicare	203	220	240	261	283	305	330	357	387	421	459	501
State and local	133	141	148	157	167	177	188	200	212	226	240	256
Percentage Change from Previous Year												
All National Health Expenditures	4.4	5.3	5.8	6.2	6.2	6.3	6.5	6.5	6.6	6.7	6.8	6.8
Private	3.2	3.9	4.7	5.1	5.3	5.5	5.7	5.7	5.7	5.7	5.7	5.7
Private health insurance	2.6	3.6	4.8	5.3	5.4	5.5	5.8	5.7	5.7	5.7	5.7	5.7
Out-of-pocket payments	4.4	4.6	4.6	4.9	5.4	5.5	5.8	5.7	5.9	5.9	5.9	5.9
Other private funds	3.1	3.7	4.0	4.5	4.5	4.4	4.7	4.6	4.6	4.5	4.5	4.5
Government	5.6	7.1	7.0	731	7.3	7.1	7.2	7.4	7.4	7.7	7.7	8.0
Federal	6.4	7.5	7.5	8.0	7.6	7.4	7.6	7.7	7.9	8.1	8.3	8.4
Medicare	8.5	8.7	8.7	9.0	8.2	8.0	8.1	8.2	8.5	8.8	9.0	9.1
State and local	4.1	5.5	5.6	6.1	6.1	6.1	6.3	6.2	6.2	6.3	6.4	6.4

SOURCE: Congressional Budget Office.

Lower prices may squeeze providers, but they do not necessarily reduce the underlying use of services. Providers who are paid on a fee-for-service basis—either by traditional-fee-for-service plans, PPOs, or POS plans—may have little incentive to reduce the services they provide. Indeed, service utilization may actually increase when fees are reduced as providers seek to maintain their income, although the threat of being dropped from a plan's provider network may curb such increases.

Reductions in the use of services may result both from the shift to managed care plans, in which providers are at financial risk for the services they provide, and from more extensive utilization review by fee-for-service plans. Those reductions could reflect one-time changes whose effects will play out over time. Alternatively, the search for more efficient ways to deliver services could cause a longer-term drop in the rate of growth of health spending.

Lower prices paid to providers account for at least part of the slowdown in health insurance costs. Analysts from the Prospective Payment Assessment Commission report that in recent years private insurers actively constrained their payments to hospitals, while Medicare payments increased more slowly than at any time since the implementation of the prospective payment system.[27] According to that analysis, moreover, hospitals have responded to the squeeze on their revenues by restricting the growth in their costs enough to increase their margins on Medicare patients.

Besides paying providers less, tightly managed health care plans have constrained the use of services by making fewer referrals to specialists and reducing the use of inpatient hospital services. Nonetheless, some analysts believe that considerable excess capacity remains to be squeezed out of the hospital system —even in areas with highly competitive markets. For example, in a recent article about the effects of managed care on the hospital industry in California between 1983 and 1993, James Robinson estimated that hospital expenditures grew 44 percent less rapidly in markets with high HMO penetration than in markets with low HMO penetration.[28] Of that 44 percent, 28 percent resulted from reductions in admissions and lengths of stay, 10 percent from reductions in service intensity per patient day, and only 6 percent from reductions in hospital capacity—despite the significant drop in hospital occupancy rates that occurred over the period. The overall occupancy rate for staffed hospital beds in California fell from 69 percent in 1983 to 61 percent in

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27. Stuart Guterman, Jack Ashby, and Timothy Greene, "Hospital Cost Growth Down," *Health Affairs,* vol. 15, no. 3 (Fall 1996), pp.134-139.

28. James C. Robinson, "Decline in Hospital Utilization and Cost Inflation Under Managed Care in California," *JAMA: The Journal of the American Medical Association,* vol. 276, no. 13 (October 2, 1996), pp.1060-1064.

1993. Moreover, in the markets with the highest HMO penetration, occupancy rates were below 60 percent by 1993.

Robinson sees the unwillingness to reduce capacity as a sign of weakness in the nonprofit hospital sector, maintaining that for-profit hospital systems have been much readier to close marginal facilities instead of allowing them to be a continuing financial drain. But he also argues that, in the longer term, continued slower growth in hospital spending will depend on whether health plans can keep reducing the growth rate of service intensity. A recent study of hospitals in 15 communities supports the conclusion that hospitals have demonstrated significant resistance to downsizing, even in the face of low utilization.[29]

Another recent study indicates that market forces are slowing the growth of physicians' revenues significantly, although the effects of price and utilization cannot be distinguished in the reported findings.[30] According to the study, the median net income of physicians fell by about 4 percent between 1993 and 1994. That drop represented the first decline in the nominal earnings of physicians since those statistics began being collected in 1982. Physicians with the highest earnings experienced the largest relative reductions in income, and the gap in earnings between primary care physicians and specialists narrowed.

The authors maintain that those changes cannot be attributed simply to the effects of managed care, because specialists in markets with low managed care penetration had comparable income losses to those of specialists in mature managed care markets. That finding suggests that other factors—such as the overall increase in the supply of physicians—are putting downward pressure on incomes, independent of any managed care effects.

The strength and permanence of that downward pressure are uncertain. The American Medical Association (AMA) recently reported that the median net income of physicians rose by almost 7 percent in 1995, offsetting the 4 percent decline in the previous year.[31] In an accompanying statement, the AMA pointed out that the "opposing results for the last two years illustrate the danger of drawing long-term conclusions based on change in one year alone." Experts have proposed several

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29. Kathryn Saenz Duke, "Hospitals in a Changing Health Care System," *Health Affairs*, vol. 15, no. 2 (Summer 1996), pp. 49-61.

30. Carol J. Simon and Patricia A. Born, "Physician Earnings in a Managed Care Environment," *Health Affairs*, vol. 15, no. 3 (Fall 1996) pp. 124-133.

31. American Medical Association, "Recent Trends in the Physicians Services Market" (press release, Washington, D.C., December 1996).

possible reasons for the reversal.[32] Some believe that the 1994 reduction was not as great as the AMA survey indicated. Others suggest that the downward pressure that managed care plans exert on physicians' incomes may be lessening. The national health accounts also show higher growth in spending for physicians' services in 1995 than in the two previous years. Spending growth averaged about 4 percent a year between 1992 and 1994 but reached almost 6 percent in 1995.

Consolidation in the Health Care Industry

Mergers among health care providers and insurers have increased rapidly in the 1990s, and that trend seems likely to continue. Greater consolidation in the health care industry could lower costs in the short run, for at least three reasons: bigger health plans have more market power when negotiating with providers, plans operating in multiple markets can be more efficient, and providers dealing with fewer health plans face lower administrative costs. Moreover, large, well-capitalized organizations have the necessary resources to invest in new information technologies that may play a key role in slowing the growth of health care costs, as well as in large patient databases for identifying effective treatment methods.

But increased market power helps providers as well as health plans. As providers consolidate, they develop more ability to withstand pressure from health plans to lower their prices, which makes it harder for plans to contain costs. Thus, even in the short run, the net effects of mergers on costs are uncertain and may vary in different markets. In the long run, moreover, if greater consolidation of the industry resulted in a few integrated delivery systems in each health care market, price competition among health plans could decrease and consumers could face rising health care costs. Such an outcome would depend in part on whether potential competitors could continue to enter the market relatively easily as consolidation increased.

Profits in the Health Insurance Industry

Health policy analysts have noted that, until recently, the profits of health insurance companies tended to be cyclical, with three years of rising profits followed by three years of falling profits. Changes in health insurance premiums followed a similar

32. See "Physician Pay Back Up, But Two-Year Trend Still Shows Loss," *American Medical News*, vol. 40, no. 1 (January 6, 1997), pp. 1, 26.

six-year cycle, lagging the profits cycle by about two years.[33] The explanation may be that some insurers attempted to expand their share of the health insurance market by holding down premiums, causing others to follow suit. That downward pressure on premiums caused underwriting losses to rise, eventually forcing an increase in premiums to cover them.

That cycle may be a less significant factor in present and future health insurance markets. The underwriting cycle has little relevance to self-insured companies, which generally do not seek profits from the health insurance products they offer their employees. In addition, the current competitive environment among health plans appears to have fundamentally changed the way premiums are established and the relationship between premiums and the profitability of health plans. Although considerable evidence indicates that competitive forces are squeezing the profits of both managed care plans and traditional health insurers, that does not mean such pressures will necessarily result in large premium increases in the future.

Some industry analysts believe that managed care organizations underestimated the growth in costs and utilization that they experienced recently, which has caused their costs to rise as a percentage of their premiums. A 1995 article in the *Wall Street Journal*, commenting on a sudden large drop in the share prices of HMOs, maintained that rapidly expanding enrollment had enabled HMOs to boost their earnings significantly while charging essentially flat premiums.[34] However, the article suggested that enrollment was no longer growing enough to offset the downward pressure on premiums that HMOs were encountering as they fought for market share. A similar article in October 1996 stated that HMOs had experienced a poor financial year and were facing difficulties with pricing and costs.[35] Premiums remained flat as companies continued the fight for market share, but medical costs were rising faster than expected, especially for pharmaceuticals and the services of specialty physicians. According to the article, some of the major HMO companies experienced "huge earnings shortfalls" in the second quarter of 1996 as a result of those factors, and the poor earnings performance was expected to continue in the third quarter.

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33. Paul J. Feldstein and Thomas M. Wickizer, "Analysis of Private Health Insurance Premium Growth Rates: 1985-1992," *Medical Care*, vol. 33, no. 10 (October 1995), pp. 1035-1050.

34. George Anders and Ron Winslow, *Wall Street Journal,* April 20, 1995, cited in *Medical Benefits* (May 15, 1995), p. 7.

35. Louis Hau, "HMOs Are Expected to Post Soft Results Because of Flat Rates, Increasing Costs," *Wall Street Journal*, October 21, 1996, p. B11C.

At issue are the strategies that managed care plans will adopt to meet the dual goals of satisfying their shareholders and maintaining their market share. In a highly competitive environment, trying to boost earnings by premium increases alone could be self-defeating, because reductions in enrollment could offset the effects of higher premiums. Some analysts believe, therefore, that the large premium increases of the past are unlikely to recur in the short run, at least among managed care plans. Rather, those plans may combine modest premium increases with further reductions in payments to providers and greater management efficiencies (though possibly compromising on quality or access) to improve their bottom line. A recent survey of HMOs supports that idea; it found that, on average, HMOs expected premiums to rise by 2.6 percent in 1997.[36] Other analysts are predicting somewhat larger increases this year, ranging from 3 percent to 6 percent in some cities.[37] Consistent with those estimates, Foster Higgins predicts that employers' health care costs will rise by an average of 4 percent in 1997.[38] Such growth would be considerably higher than in 1995 and 1996, but a far cry from the large increases of the past.

Other industry analysts, however, have apparently not written off the possibility of a return of the underwriting cycle. That idea was prompted by a recent study citing the large losses experienced by some Blue Cross and Blue Shield plans in 1995.[39] The Health Insurance Association of America reports that major commercial health insurance companies sustained "unprecedented" underwriting losses in 1995 for both group and individual business.[40] Those losses were the highest that the association had recorded since it began surveying commercial insurers in 1976. Although the companies reported small net operating gains in 1995, those gains appear to be shrinking.

Large underwriting losses would seem to presage higher premiums. But if their managed care competitors intend to hold the line on large premium increases, commercial insurers may have to do the same if they wish to remain competitive. However, such insurers do not have the same range of tools as managed care

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36. See Louise Kertesz, "Insurance Cost Slowdown Not Likely to Continue," *Modern Healthcare* (October 14, 1996), p. 26.

37. See "Bargains on HMO Coverage—Get 'Em While They Last," *Medicine and Health*, vol. 50, no. 48 (December 16, 1996), p. 3.

38. Foster Higgins, *National Survey of Employer-Sponsored Health Plans, 1996: Executive Summary* (New York: Foster Higgins, 1997).

39. See "Do Blues Losses Signal Return of Insurance Underwriting Cycle?" *Medicine and Health,* vol. 50, no. 40 (October 14, 1996), p. 2.

40. Health Insurance Association of America, *Operating Results from the Leading Writers of Group and Individual Health Insurance, 1995* (Washington, D.C.: HIAA, June 1996).

companies to control their costs and thus remain profitable. As a result, over the next few years, the current shakeout of the commercial health insurance industry may continue, with some companies leaving the industry altogether and others reconfiguring their insurance products or merging with other companies.

Development and Use of New Technologies

The changing structure of the health care industry will affect the types of new technologies that are developed and the extent to which they are disseminated and used, which in turn will affect the growth of spending. As health plans assume the financial risk for all of a patient's care, they have a strong incentive to invest in technologies that promote the most efficient means of delivering health care services, regardless of the site of care. Such technologies include advanced patient information systems as well as cost-effective treatment methods, some of which may significantly improve patients' care and satisfaction. A recent survey of managed care plans, conducted by Claudia Steiner and colleagues, indicates that cost-effectiveness is a significant factor in plans' decisions to cover new medical technologies.[41]

What is much less certain is how the changing market dynamics of the health care industry will affect investment in developing and distributing high-cost medical technologies. High-cost technologies include those that would significantly increase costs per patient; they also include technologies, such as laparascopic surgery, that would lower costs per patient but result in much greater use of services (and, consequently, higher overall expenditures) than existing modes of treatment do. Steiner's study, which focused on the adoption of certain laser technologies by managed care plans, suggests that the adoption and use of medical technologies is affected by the organizational structure of plans and by their risk-sharing arrangements with physicians. Some types of managed care plans, such as staff-model HMOs, may attempt to restrict coverage of high-cost technologies to contain costs. But the authors suggest that plans that share financial risks with providers may be able to offer broader coverage of new technologies while still controlling the growth of spending.

New Purchasing Strategies by Employers

Although in recent years employers have focused primarily on price in buying health insurance, they are also concerned with satisfying their workers, some of whom

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41. Claudia A. Steiner, Neil R. Powe, and Gerard F. Anderson, "Coverage Decisions for Medical Technology by Managed Care: Relationship to Organizational and Physician Payment Characteristics," *American Journal of Managed Care*, vol. 2, no. 10 (November/December 1996), pp. 1321-1331.

dislike tightly managed, closed-panel HMOs and want more freedom to choose their physicians.[42] Increasingly, therefore, employers are offering health plans with out-of-network options that tend to be more costly than those with closed panels of providers. As a consequence, POS plans are now the fastest growing health insurance product.

Some employers have also put an emphasis on obtaining good value for the health care dollars they spend (where value would ideally be measured in terms of the improved health status and productivity of their workers). Hence, they are increasingly interested in finding effective ways to measure the quality and health care outcomes of health plans and in offering only plans that meet certain quality criteria (such as accreditation by the National Committee for Quality Assurance). As measures of outcome improve, the relative weights that employers give to price and quality when making their purchasing decisions may change. Some analysts believe that slow growth in prices will make quality issues the basis for future competition in the health insurance marketplace.[43] Two key determinants of future spending growth are how purchasers will perceive the quality of care and, in particular, whether the technological capabilities of providers as well as measurable health outcomes will grow in importance as factors on which health plans compete.

Backlash Against Managed Care

If recent legislative history at both the federal and state levels is any guide, consumers and providers may exert considerable influence in the future over the methods that managed care plans use to control their costs. The past year has seen a rash of efforts to curb what consumers, providers, and legislators alike perceive to be the excesses of managed care and corporate medicine. Examples range from state "any-willing-provider" laws (which require health plans to contract with any providers who accept their terms of participation) and "anti-gag-rule" laws (which prohibit plans from restricting certain communications between physicians and patients) to federal legislation requiring health plans to pay for at least a minimum number of days for maternity patients.

Whether the recent legislation represents a temporary phenomenon or a new era of activism by consumers and providers—with potentially major implications for the future growth of health care spending—is uncertain. But, at least in the coming

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42. See, for example, Lynn Etheridge, Stanley B. Jones, and Lawrence Lewin, "What Is Driving Health Systems Change?" *Health Affairs*, vol. 15, no. 4 (Winter 1996), pp. 93-104.

43. See, for example, National Committee for Quality Health Care and HealthCare Horizons, *Six Competitive Health Care Markets: Putting the Pieces Together* (Washington, D.C.: National Committee for Quality Health Care, October 1996).

year, a surge of new state and federal legislation to constrain managed care plans further is likely. According to a recent survey by the Blue Cross and Blue Shield Association, many states will be considering a variety of anti-managed-care initiatives this year.[44] They include legislation that would:

- Require due process for providers, making it difficult for a health plan to deny or terminate a provider's membership in a network;
- Require health plans to cover out-of-network services;
- Allow enrollees in managed care plans to have direct access to certain specialists without a referral from a primary care physician;
- Require health plans to cover minimum hospital stays for mastectomy patients;
- Require health plans to pay for emergency room services received by an enrollee, if a "prudent layperson" would have judged the situation to be an emergency;
- Require health plans to cover experimental or investigational treatments; and
- Expand the requirements for parity for mental health services that were enacted by the 104th Congress.

The Congress is considering many similar proposals for federal legislation.

How the courts may address legal challenges to anti-managed-care legislation is unclear. The U.S. Supreme Court, for example, recently refused to hear a case on Louisiana's any-willing-provider law. The state was appealing a decision by the Fifth Circuit Court of Appeals that overturned the Louisiana law on the grounds that it was preempted under the Employee Retirement Income Security Act of 1974. But the Supreme Court may eventually hear such a case because other federal and state courts have issued conflicting rulings on the issue.[45]

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44. See Bureau of National Affairs, "New Round of 'Anti-Managed Care' Bills Await State Action, Blues Survey Finds," *Health Care Policy Report* (February 17, 1997) pp. 290-291.

45. Linda Greenhouse, "Justices Refuse Case on Whether Health Care Networks Must Be Open to All Doctors," *New York Times*, November 5, 1996, p. B16.

WHAT CAN MEDICARE LEARN FROM THE RECENT EXPERIENCE OF THE PRIVATE SECTOR?

Unlike private health expenditures, Medicare spending has continued to grow rapidly in recent years—increasing at an average annual rate of more than 10 percent between 1990 and 1995. CBO's latest projections indicate that, under current law, Medicare spending will continue to grow much faster than private health spending, at an average rate of 8.6 percent a year through 2007, compared with 5.5 percent for private health spending. That difference in growth represents a marked change from the 1980s, when Medicare and private health spending increased at similar rates. It inevitably gives rise to comparisons that are unfavorable to Medicare and raises questions about whether the program could lower spending growth by adopting private-sector strategies.

Making precise comparisons of the spending growth in Medicare and the private sector is difficult for a variety of reasons: the underlying populations of the two sectors are increasing at different rates and have different characteristics, data inadequacies limit analysts' ability to estimate rates of growth of spending per covered person, and the benefits that the two sectors cover differ significantly (see Box 4).[46] Nonetheless, it is hard to avoid the conclusion that the private sector has achieved more effective control over spending than has Medicare. But how to translate that conclusion into strategies for the Medicare program is much less clear.

The difference between the trends in Medicare and private health expenditures is hardly surprising. As described earlier, recent changes in the market for private health insurance have caused intense competition among private health plans and corresponding efforts to limit premium increases. Employers have sought to take advantage of that competition, shifting from indemnity to managed care plans and bargaining with health plans to restrain premium increases. At the same time, some employers have tried to lower their costs by reducing the health care options available to their employees and by making their employees responsible for a greater share of their own health spending.

By contrast, competition plays only a minor role in the Medicare market. Despite the recent rapid growth of Medicare enrollment in HMOs, only about 11 percent of Medicare beneficiaries are enrolled in risk-based plans. Beneficiaries enrolled in the traditional fee-for-service program nominally face cost-sharing requirements, but most them have private or public supplemental coverage that pays for much of that cost sharing. Hence, they have little incentive to curb their use of

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46. For a detailed discussion of the issues in comparing Medicare and private-sector expenditures, see Congressional Budget Office, "Trends in Health Spending by the Private Sector and Medicare," unpublished memorandum (June 11, 1996).

BOX 4.
COMPARING MEDICARE AND PRIVATE-SECTOR HEALTH SPENDING

The many differences that exist between the Medicare program and private insurance, in terms of benefits and the characteristics of the covered populations, make comparing the two problematic. Recent studies that compare trends in Medicare and private health spending have focused on a common set of benefits, which the authors maintain is the only way to compare "apples to apples."[1] Those researchers argue that it would be unfair to include services covered by one sector and not the other when comparing spending trends (if spending on such services grew at different rates than average spending). Furthermore, because of the greater age and poorer health status of Medicare beneficiaries, they use some services—such as home health care and skilled nursing facility services—much more extensively than the general population. Consequently, some analysts believe that comparisons of spending trends in Medicare and the private sector should exclude those types of services.

The validity of that approach to comparing spending depends on the nature of the policy questions to be answered. If the issue is how effectively Medicare has controlled spending for particular services, regardless of spending growth in other areas, then basing a comparison on a similar set of services might be appropriate. That approach is potentially misleading, however, when addressing the broader question of how well Medicare has controlled overall spending. Comparisons that are based on incomplete insurance packages ignore the substitutions among services that may occur under different combinations of covered benefits.

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1. See, for example, Katharine R. Levit, Helen C. Lazenby, and Lekha Sivarajan, "Health Spending in 1994: Slowest in Decades," *Health Affairs*, vol. 15, no. 2 (Summer 1996), pp. 130-144; Marilyn Moon and Stephen Zuckerman, *Are Private Insurers Really Controlling Spending Better Than Medicare?* (Washington, D.C.: Henry J. Kaiser Family Foundation, July 1995).

health care services. Medicare beneficiaries face a limited choice of alternative health plans—generally, they can choose between the traditional plan and one or more HMOs. But payments to Medicare HMOs are tied directly to fee-for-service payments. So HMOs compete for beneficiaries by offering additional benefits rather than competing on price.

The Medicare program, therefore, operates in a fundamentally different environment than private health insurance markets. The program essentially reflects the prevailing health insurance model of the 1960s and has changed little since then. Private insurance markets, by contrast, are continually evolving to reflect the changing demands and expectations of employers and consumers. In particular, private markets are responding to purchasers' growing emphasis on containing costs and, more recently, on ensuring quality and allowing choice of provider. All of the measures and indicators of change discussed in this paper provide snapshots of a private health insurance market that is undergoing fundamental restructuring, as multiple actors (providers, insurers, employers, and consumers) respond to market forces.

The private sector's primary lesson for Medicare is that price competition among health plans, aggressive purchasing strategies, and price incentives for beneficiaries can slow the growth of spending. But to produce a similar transformation in Medicare—so that price and cost become key components of decisionmaking for beneficiaries and providers—will require considerable time and a different evolutionary process. Medicare is a highly regulated government program with administered prices; it serves a vulnerable population whose needs for health care services differ considerably from those of most privately insured people. Creating a functional competitive market for health plans that serve Medicare beneficiaries would be a complex undertaking that could require years to achieve. But postponing efforts to restructure the program will only make those changes more difficult to accomplish in the future.[47]

Although policymakers can borrow ideas from the private sector as they seek to restructure the financial incentives in Medicare, they will have to decide whether some of the strategies used in the private sector would be appropriate for the program. As described above, those strategies include not only reducing payments to providers—Medicare's customary approach to cost containment—but also requiring employees to bear part of the brunt of slower spending growth. Some measures adopted by employers, such as dropping fee-for-service options altogether or eliminating all choices other than a single managed care plan, are considerably tougher than those considered for Medicare to date. Other measures used by

47. For a discussion of these issues, see Congressional Budget Office, *Reducing the Deficit: Spending and Revenue Options* (August 1996), Chapters 6 and 7.

employers, however, such as increasing cost-sharing requirements in fee-for-service plans or making a level premium contribution when more than one choice of plan is offered, are now becoming part of the public debate on the future of the Medicare program.[48]

CONCLUSIONS

Fundamental changes are taking place in the health insurance industry as competition among plans transforms health care markets. The speed of that change poses a major challenge for analysts attempting to track trends in spending, because traditional surveys of health care providers have difficulty keeping pace with the vertical integration and consolidation that are occurring in the industry. Nonetheless, there is widespread evidence that the growth of health care spending by the private sector has slowed considerably. Moreover, although the future course of such spending is highly uncertain, a return to the double-digit growth rates of the 1980s and early 1990s seems unlikely in the next few years.

In spite of their limitations, the available data indicate that many employers have adopted a dual strategy to contain the growth in their health care costs. First and foremost, they have tried to take maximum advantage of the strong price competition in health care markets by switching the insurance they offer from higher-cost to lower-cost plans. Second, some employers are using a variety of strategies to make both workers and retirees assume greater responsibility for their own health care costs. Those measures include dropping traditional indemnity coverage and instead offering a single managed care plan, and offering multiple plans but giving employees financial incentives to choose ones with lower costs. In addition, some managed care strategies—such as carving out mental health benefits—may both lower costs and allow more generous coverage to be offered, albeit with little or no choice of provider.

In contrast to the private sector, the Medicare program has realized little financial benefit from the increased competition in health care markets. Thus, the program could probably reduce spending growth by adopting some of the strategies that employers have used to contain their health care costs. Steps such as breaking the payment link between the fee-for-service and managed care sectors, expanding competition among health plans, and limiting federal contributions in ways that would encourage beneficiaries to choose lower-cost plans could help to maintain Medicare's fiscal viability. But the adoption of any such measures should be part of

48. See, for example, David M. Cutler, "Restructuring Medicare for the Future," in Robert D. Reischauer, ed., *Setting National Priorities: Budget Choices for the Next Century* (Washington, D.C.: Brookings Institution, 1997).

a broader overall long-term strategy to restructure the program, changing the incentives facing both beneficiaries and providers to instill price sensitivity and cost-effective decisionmaking. Such restructuring could take many years to achieve.

APPENDIX: LIMITATIONS IN USING DATA FROM EMPLOYER SURVEYS

Employer surveys provide a ready source of information on how the characteristics of employment-based health insurance are changing over time. The data have some inherent limitations, however, of which analysts should be aware. This appendix focuses on some of the methodological issues raised by such surveys and examines the apparent inconsistencies in their findings on requirements for premium contributions.

Methodological Issues

Surveys of employers conducted by government agencies and private companies use different sampling strategies and different approaches to collecting information. Their methods affect the validity of their findings and the inferences that can be drawn from their data. In particular, analysts should ask two important questions when using such data.

Can the Results Be Generalized to All Employers? To draw valid inferences about a population from a sample, that sample should ideally be selected randomly from the population of interest—a process that requires a complete list of all members of the population from which to select the sample. If a survey is not based on a random sample, its results may be biased, and generalizing those results to the population as a whole may be impossible. Although some surveys of employers attempt to draw random samples of firms, others use so-called convenience samples that are typically selected from the list of clients of a benefits consulting company and probably produce biased results.

Both types of surveys generally exclude small firms (those with fewer than 100 employees, for example). Because small firms are less likely to offer health insurance to their workers and, typically, pay higher premiums for the same amount of coverage as larger firms, their omission certainly biases the estimates of health insurance premiums paid by employers. Whether their omission also biases the estimates of the rate of growth of premiums is less clear.

The major surveys of employers differ considerably in their sampling methods. Currently, both the Peat Marwick and Foster Higgins surveys use random samples from the Dun and Bradstreet list of firms, but before 1993, Foster Higgins used a convenience sample of its own clients. (Foster Higgins still collects data from a convenience sample, but those data are apparently not used in the published findings.) Peat Marwick excludes firms with fewer than 200 employees (although researchers at Wayne State University conduct an occasional small-firm supplement in conjunction with Peat Marwick), whereas Foster Higgins excludes only firms with

fewer than 10 employees. To estimate the employment cost index (ECI), the Bureau of Labor Statistics also uses a random sample of establishments. The survey covers all occupations in the private economy (with the exception of farms, households, and the self-employed) and in state and local governments. Hay/Huggins, by contrast, primarily uses a convenience sample of the company's own clients, which tend to be medium and large firms, supplemented by a random sample of other medium and large firms. Most of the firms in the resulting sample have more than 100 employees.

In addition to the process for selecting samples, the response rate by employers may affect the validity of the results. Bias can occur if respondents differ from nonrespondents in ways that affect their health care costs. High rates of nonresponse raise the concern that employers who do answer the survey are atypical in some way.

Response rates for the major surveys appear to be similar and sometimes quite low, although obtaining comparable information for all of the surveys is difficult. The response rate for Peat Marwick's survey was 77 percent in 1995, dropping to 50 percent in 1996. The response rate for the Hay/Huggins survey has also declined over time—from 77 percent in 1993 to less than 50 percent in 1995. Foster Higgins reported a 50 percent response rate in 1995, but the rate for the key health insurance questions appeared to be considerably lower. The Bureau of Labor Statistics reports that response rates for the health insurance questions is lower than for the other questions in the ECI survey.

How Do the Surveys Collect and Report Information on Health Insurance Costs?
The data that different surveys collect on the cost of employment-based health insurance, including the actual measures of premiums that they use, vary widely. Several factors in particular may contribute to differences in the surveys' findings.

Surveys differ in whether they ask for data on employers' health care costs on a per-enrollee basis or a per-employee basis. By definition, premium data reflect costs per enrollee and indicate how the costs of health coverage are changing. But changes in health care costs per employee include changes in both the costs of health care coverage and in the number of covered employees. Thus, an employer's health care costs may grow more slowly in part because fewer employees have coverage.

Different perspectives on trends in premiums for employment-based insurance may also arise if the data reflect the entire premium (or premium equivalent) or just the employer's share. If employers reduce their health care costs by shifting more of the premium to their employees, the employer's share may grow more slowly than the total premium. Again, surveys differ in the information that they ask employers to report.

Because a large percentage of firms self-insure and thus do not pay premiums for their employees, survey researchers have to determine the appropriate cost information to obtain from such firms. Some survey organizations ask self-insured firms for the rates that they charge for coverage under the Consolidated Budget Reconciliation Act of 1985 (COBRA). Other organizations have adopted alternative strategies.

A variety of coverage issues affect employers' costs for health insurance, including the number and types of plans that they offer; whether they offer family coverage, and if so, on what terms; and the amount of retiree coverage they provide. (The rate of growth of employers' premiums may slow, for example, because fewer workers are electing to cover their dependents and are switching from family to individual coverage.) Not only do different survey organizations collect varying amounts of that information, but it is frequently unclear how they compile the various kinds of information into a single measure of average premiums to track overall trends.

Determining what measures and strategies some survey organizations use is difficult because their published reports typically say relatively little about methods, and back-up documentation is often hard to obtain. The following summarizes the methods used by the surveys included in this paper.

- Peat Marwick collects information about average premiums for employees and retirees, but it reports the retiree data separately. Premium information for all firms reflects rates charged under COBRA. Peat Marwick breaks out the data on premiums by type of plan (conventional fee-for-service, preferred provider organization, point-of-service plan, or health maintenance organization) and type of coverage (single or family). Estimates of the growth rates of premiums use the actual premiums that each firm reports, as well as each firm's responses to questions that compare the costs of coverage in the current year and the previous year.[1] How that information is compiled into an overall average growth rate for premiums, however, is unclear.

- Hay/Huggins bases its estimates of premium trends on a weighted average of single and family premiums. The company derives those estimates by asking employers for information on the premiums for their most prevalent plan—that is, the plan enrolling the greatest number of the firm's employees. Hay/Huggins asks self-insured firms

1. See KPMG Peat Marwick, *Trends in Health Insurance* (Washington, D.C.: KPMG Peat Marwick, December 1993), p. 5.

for the rates they charge under COBRA. The company also collects information on retirees and produces separate estimates of retiree health costs.

- In the past, Foster Higgins has collected and reported information on employers' health care costs using a fundamentally different measure of costs than Peat Marwick or Hay/Huggins. Its survey asks employers for their total health care costs, including any employee contributions, by type of plan for active employees, retirees, and covered dependents. Those combined costs are then reported as an amount per active enrolled employee. Since 1994, however, Foster Higgins has also collected and reported separate premium information for active employees and retirees. But it continues to report annual increases in health care costs in the traditional manner.[2]

- The ECI measures changes in employee compensation. As part of that process, the Bureau of Labor Statistics tracks employers' costs for health care per employee-hour, excluding the health care costs of retirees. Because the index is strictly concerned with employers' costs, it also excludes the share of the premium paid by employees. No information is collected on premiums for different types of plans.

Survey Findings on Premium Contribution Requirements

Both the Peat Marwick and Foster Higgins annual surveys provide detailed information on how premium contribution requirements are changing over time. But the data are sometimes internally inconsistent and are difficult to interpret.

Data from Peat Marwick's annual surveys of firms with 200 or more employees suggest that workers are paying an increasing share of premiums. The surveys indicate that, on average, employers paid 65 percent to 73 percent of the premium (depending on plan type) for family coverage in 1996, compared with 71 percent to 80 percent in 1993 (see Table A-1). Similarly, employers contributed at least 80 percent of the premium for individual coverage on average in 1993 (regardless of plan type), but in 1996 they contributed less than that for point-of-service (POS) plans and health maintenance organizations (HMOs). When those data

2. See Foster Higgins, *National Survey of Employer-Sponsored Health Plans, Report/1995* (New York: Foster Higgins, 1996), p. 9.

TABLE A-1. PEAT MARWICK'S ESTIMATES OF PREMIUM CONTRIBUTION REQUIREMENTS BY TYPE OF INSURANCE PLAN AND SIZE OF FIRM

Type of Insurance Plan	All Firms with 200 or More Employees		Firms with 200 to 999 Employees		Firms with 1,000 to 4,999 Employees		Firms with 5,000 or More Employees	
	1993	1996	1993	1996	1993	1996	1993	1996
Average Percentage of Premium Paid by Employer[a]								
Conventional Fee-for-Service Plan								
Single	86	83	88	83	84	79	86	84
Family	76	72	77	73	74	74	75	71
Health Maintenance Organization								
Single	81	73	82	74	84	75	75	71
Family	71	65	74	59	79	71	56	64
Preferred Provider Plan								
Single	81	80	82	76	76	80	87	83
Family	72	72	75	65	70	70	71	79
Point-of-Service Plan								
Single	86	77	63	75	99	84	54	74
Family	80	73	63	66	87	80	55	71
Percentage of Workers in Plans Requiring No Premium Contribution from Employees								
Conventional Fee-for-Service Plan								
Single	27	35	50	36	23	29	38	37
Family	12	14	30	17	12	18	19	10
Health Maintenance Organization								
Single	34	20	43	28	22	17	39	19
Family	16	10	27	10	17	10	26	9
Preferred Provider Plan								
Single	27	34	45	34	19	25	19	41
Family	12	19	18	13	8	11	6	30
Point-of-Service Plan								
Single	47	27	11	22	30	27	59	29
Family	11	11	0	8	15	17	12	9

SOURCE: KPMG Peat Marwick, *Health Benefits in 1993,* and *Health Benefits in 1996.*

a. Percentages are based on workers and include those in plans that do not require a premium contribution.

are broken down by firm size, however, the trend becomes less clear. For example, between 1993 and 1996, the average share of family premiums paid by employers for preferred provider organizations (PPOs) and HMOs apparently fell among firms with fewer than 1,000 employees but rose among firms with 5,000 or more employees.

Data from the Foster Higgins surveys also show variation in premium contribution rates—and in the trends in those rates—by plan type and firm size (see Table A-2). The data are not directly comparable to Peat Marwick's because the reported percentages are based on firms rather than workers. Also, unlike Peat Marwick, Foster Higgins bases its estimates of the share of premiums that employers pay on only those plans for which a contribution is required.

Foster Higgins reported that the proportion of medium and small employers (fewer than 500 workers) who fully paid premiums declined over the 1993-1995 period. That was the case for all types of plans and for both individual and family coverage. But among larger employers, the proportion who paid premiums in full dropped significantly only for POS plans and actually rose for some other types. Among firms requiring premium contributions, the average employer's contribution fell for all types of family coverage among medium and small firms, but trends were mixed for single coverage. By contrast, employers' contribution rates appeared to change little among larger firms—the only exception being a drop of 10 percentage points in their average contribution rate for family PPO coverage.

At issue in both the Peat Marwick and the Foster Higgins surveys is the extent to which the trends shown reflect real changes in employers' strategies or the effects of measurement, definitional, and sampling problems. The published data do not enable analysts to disentangle either those effects or the effects of shifts in enrollment between different types of plans. But some of the apparent inconsistencies in the data raise questions about the reliability of the estimates.

Consider, for example, Peat Marwick's data on workers in firms with at least 5,000 employees. The annual surveys indicate that between 1993 and 1996, those with single coverage in POS plans saw the annual premium percentage paid by their employer increase from 54 percent to 74 percent. At the same time, however, the proportion of such workers who faced no premium contribution fell from 59 percent to 29 percent. Two issues arise here. First, if 59 percent of workers faced no premium contribution requirement, the average percentage of the premium paid by employers would have to be at least 59 percent (rather than 54 percent), given that Peat Marwick includes enrollees in plans requiring no contribution when estimating premium contributions. Second, given a dramatic increase in the proportion of workers having to make premium contributions, one would expect the employer's share to fall rather than rise. Moreover, the estimated rates are extremely volatile from year to year; Peat Marwick reports that the proportion of large-firm workers

TABLE A-2. FOSTER HIGGINS'S ESTIMATES OF PREMIUM CONTRIBUTION REQUIREMENTS BY TYPE OF INSURANCE PLAN AND SIZE OF FIRM

	Firms with Fewer than 500 Employees		Firms with 500 or More Employees	
	1993	1995	1993	1995
Average Percentage of Premium Paid by Employer[a]				
Conventional Fee-for-Service Plan				
Single	61	60	76	77
Family	45	43	67	67
Health Maintenance Organization				
Single	68	60	77	78
Family	55	45	67	65
Preferred Provider Plan				
Single	62	66	76	75
Family	46	43	69	59
Point-of-Service Plan				
Single	52	59	81	80
Family	54	50	65	68
Percentage of Firms Requiring No Premium Contribution from Employees				
Conventional Fee-for-Service Plan				
Single	68	59	33	31
Family	38	31	15	17
Health Maintenance Organization				
Single	48	39	26	28
Family	29	23	11	12
Preferred Provider Plan				
Single	67	52	23	35
Family	39	21	10	13
Point-of-Service Plan				
Single	64	45	43	23
Family	26	24	25	12

SOURCE: Foster Higgins, *National Survey of Employer-Sponsored Health Plans, 1993*, and *National Survey of Employer-Sponsored Health Plans, 1995*.

a. Percentages are based on firms and exclude plans that are fully paid by employers.

with no premium contribution requirement fell from 59 percent in 1993 to 12 percent in 1995 before rising again to 29 percent in 1996. Such wide swings seem implausible.

The Foster Higgins data on premium contribution requirements are more difficult to interpret because they exclude plans that are fully paid by employers from the estimates of the average employer's share of premiums. For example, if the proportion of employers requiring premium contributions from their workers grew, the average share of premiums paid by employers would tend to fall. But such a decline would not necessarily show up in the Foster Higgins data. Indeed, the reported share paid by employers could actually rise, if firms initiating contributions from workers required them to pay a smaller percentage of their premiums than firms that already required contributions. Thus, for example, Foster Higgins reports that among firms with 500 or more employees, the proportion paying the full cost of family coverage in a POS plan fell from 25 percent to 12 percent between 1993 and 1995. At the same time, however, the average share of the premium that employers paid rose slightly, from 65 percent to 68 percent.

Like the Peat Marwick estimates, the Foster Higgins estimates demonstrate considerable volatility between 1993 and 1995. However, much of it is associated with the data from 1994, a year in which there were apparently problems with weighting the sample.